Date: June 13, 2007 Item No. 8.

MILPITAS PLANNING COMMISSION AGENDA REPORT

Category: Public Hearings Report Prepared by: Cindy Hom

Public Hearing: Yes: __X___ No: _____

Notices Mailed On: 06/01/07 Published On: 5/31/07 Posted On: 06/01/07

TITLE:	**USE PERMIT NO. UP2006-13 AND "S" ZONE AMENDMENT NO. SA2006-23**
Proposal:	A request to locate a telecommunication facility that includes installation of six 1' x 4'-6" panel antennas that are concealed within a proposed 50' tall flagpole and installation of associated equipment cabinets within a 10'x15' leased space located inside an existing storage locker.
Location:	1680 South Main Street
APN:	86-34-009
RECOMMENDATION:	**Approve with Conditions**
Applicant:	T-Mobile, 1855 Gateway Boulevard, 9th Floor, Concord CA 94520
Property Owner:	Merritt Three LP , C/O Ed Roach, 1939 Harrison Street, Ste 410, Oakland, CA 94612
Previous Action(s):	"S" Zone, Use Permit, "S" Zone Approval Amendments, Rezoned from Light Industrial to Multi-Family Residential, Very High Density with the adoption of the Midtown Specific Plan
General Plan Designation:	Multi-Family Residential, Very High Density
Present Zoning:	R4-S
Existing Land Use:	Mini Storage Facility
Agenda Sent To:	Applicant & Owner
Attachments:	Plans Letter of Explanation Telecommunications Questionnaire T-Mobile Milpitas Development Plans Photo Simulations FCC License Radio Frequency Analysis Telecommunication Commission Unapproved Meeting Minutes for 4/16/07 and 5/21/07.

PJ#2460

BACKGROUND

In April 1997, the Planning Commission approved an "S" Zone application, a Use Permit (UP No. 1388) and a Negative Declaration (EIA No. 680) for a 71, 000 square foot self storage facility including a two-story manager's office and caretaker's residence.

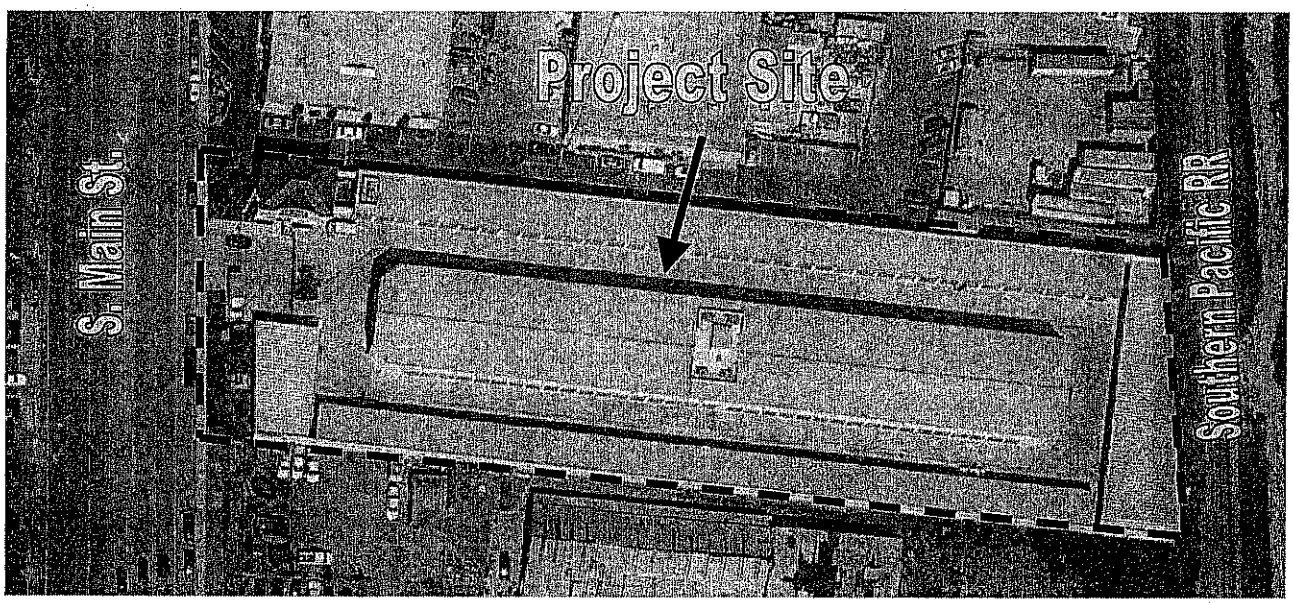
In June 1997, the Planning Commission approved an "S" Zone Approval Amendment application for exterior and site modifications including window opening changes, reconfiguration of the northern driveway, increased fence height, floor plan modifications, building color change, and installation of signage.

Subsequent approvals include S" Zone Approval Amendments for a landscape revision in April 1998 and installation of a 6' tall monument sign in November 1998.

SITE DESCRIPTION

The project is sited on a 2.19 rectangular lot that is developed with 5 storage buildings and a two-story office building and caretaker's unit. There is an existing two-way driveway that is accessed from South Main Street. The internal circulation is provided by a circular driveway that varies from 25' to 30' in width that allow vehicle access to the individual storage units. The project site provides six off-street parking spaces. Mature landscaping is located along the street frontage. There is also an existing 6' tall monument sign and approximately 30' tall flagpole.

Surrounding land uses include a four-story, multi-family residential development that is under construction to the south, an existing industrial park consisting of two-story buildings to the west, a recently approved new residential development consisting of four story buildings to the north and Southern Pacific Railroad to the east. An aerial photo of the project site is provide below:



THE APPLICATION/PROJECT DESCRIPTION

The application is filed pursuant to Title XI, Chapter 10, Section 57.02-13 (Conditional Uses, Additional Uses Permitted – Public utility and public service use or structure) and 'S' Zone Approval, pursuant to Title XI, Chapter 10, Section 42.00 (Site and Architectural Review). The applicant is requesting a use permit and 'S' Zone Approval Amendment application to locate six 1'x4'-6" panel

antennas within a proposed 50' tall flagpole that measures 20" in diameter. The application proposal also includes installation of associated equipment cabinets that will be housed with an existing storage unit located in Building 5.

The applicant has gone through several design changes prior to moving forward with the flagpole design. The applicant originally proposed a cupola on top of the center storage building. Staff was not in support of the design because it detracted from the architecture and did not fit with the scale of the building. The applicant revised the design to show a raised roof over the center storage building. Staff was concerned that the proposed height of the facility did not provide the adequate line of sight clearance for the RF transmission. The raised roof would also create visual impacts because the height of the facility would be at the same level as the first living floor of the Paragon Residential project which neighbors the proposed telecommunication facility to the south. As a result the applicant redesigned with a flagpole installation. However, the width of the proposed flagpole was 24" in diameter. Staff was concerned with the thickness of the pole and requested the applicant look into other design alternatives that would provide for a more slender flagpole. To satisfy this concern, the applicant reduced the size the antennas to provide for a more slender flagpole.

Flagpole Installation

The applicant is proposing to replace an existing flagpole that is approximate 30' tall with a 50' tall flagpole that is 20" in diameter that will be used to conceal six panel antennas (2 per sector, stacked). The flagpole is located in the front portion of the lot, near the southwest corner of the two-story office building and within an existing landscaped area. The applicant is proposing a metal enclosure to conceal the coaxial cable stub up. All coax cables will be routed underground within a 5' utility easement that extends from the flagpole to the equipment enclosure located in a 10'x15' leased area that is within a storage unit. The applicant is proposing minor exterior modification to the storage unit that is required to accommodate the equipment enclosure and entails the removal of an existing roll-up gate that will be replaced with an infill wall and access door. As proposed, the telecommunication facility will not impede any driveways. All supporting wires will be concealed within an enclosure and or undergrounded. Proposed telecommunication antennas and associated equipment will also be concealed with structures and shall not be visible from the public view.

ANALYSIS

Any approval of a Use Permit and "S" Zone, requires that the Planning Commission make the following findings:

1. The proposed use is consistent with the Milpitas Zoning Ordinance.
2. The proposed use is consistent with the Milpitas General Plan.
3. The proposed use, at the proposed location will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety, and general welfare.
4. The layout of the site and design of the proposed buildings, structures and landscaping are compatible and aesthetically harmonious with adjacent and surrounding development.

The following discussion explains how the proposed project, as conditioned, is able to satisfy these findings.

Conformance with the General Plan

The project is consistent with the General Plan. By providing for alternate telecommunications services for the conduct of commercial and personal business without creating aesthetic disharmony, it promotes a highly amenable community environment, in keeping with Guiding Principle 2.a-G-1.

Conformance with the Zoning Ordinance

The project as proposed conforms to the Zoning Ordinance. The Zoning Ordinance, Section 57 (57.01 (b), 57.02-15, and 57.03-5) allows for the proposed use to be approved in this district if it is deemed essential or desirable to the public, suitable to the site, and not detrimental or injurious to properties in the vicinity. The proposed site of the antennas is in the western portion of the project site, within a populated residential area. The antennas will be mounted near the top of a 50'tall flagpole and will be inside a cylindrical radome. The proposed facility utilizes an appropriate stealth design that is compatible with height of structures in the R4 Zoning District which allows a maximum height of 60' or four stories and will maintains the existing conditions. In addition, the facility will provide enhanced coverage for T-Mobile cell phone users and will prevent dropped and lost calls.

Conformance with the Midtown Specific Plan

Midtown Specific Plan Design Guidelines requires telecommunications facilities to be building façade or roof mounted and screened appropriately. In addition the smallest available antennas shall be used in the Midtown Area. The intent of the Midtown Design Guidelines is to promote telecommunications facilities that are unobtrusive and have a minimal visual impact to the area. The proposed flagpole monopole is 50' tall with six (6) telecommunications antennas stacked which minimizes visual impacts on surrounding views and is consistent with the Midtown Specific Plan design guidelines.

Compatibility and harmony of the site layout and design of the proposed buildings, structures and landscaping with adjacent and surrounding development

The proposed antenna array will be concealed within a cylindrical Reinforced Fiber Glass (RFP) radome near the top of a proposed 50' tall flagpole. The associated equipment enclosure will be located within an existing storage unit located in the northwest corner of Building 5. The proposed flagpole telecommunication facility will not have a visual impact on the surrounding neighborhood because it maintains the appearance of the existing conditions except for the increased height of the flagpole which is necessary to meet the line of sight clearance for RF transmission. As proposed, the flagpole will not take away from the street presence or obstruct existing views from neighboring properties. Staff recommends as a condition of approval, that the landscaping shall be enhanced around the base of the flagpole to provide screening of the metal enclosure for the coax stub-ups and to soften the thickness of the flagpole to the approval of the Planning Division.

Radio Frequency Emissions:

Federal law preserves the City's authority to regulate the placement, construction, and modification of personal wireless service facilities (47 U.S.C. 332((c)(7)(A).) However, federal law does impose a limitation on this authority in the area of radio frequency (RF) emissions. The City is prohibited by federal law from regulating the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of RF emissions to the extent the facilities comply with the Federal Communications Commission's (FCC) regulations concerning such emissions. (47 U.S.C. 332(c)(7)(B)(iv).

The FCC has established guidelines that place limits on human exposure to RF fields generated by personal wireless service facilities. These guidelines have been endorsed by the U.S. Environmental

Protection Agency and the Food and Drug Administration. The FCC requires all personal wireless facilities to comply with these guidelines.

The City, however, may still verify that applicants are in compliance with the FCC's guidelines. Therefore, the City requires applicants applying for use approval for any telecommunications device to submit a power density report. This report is reviewed by the City's Telecommunications Advisory Commission to ensure compliance with the FCC's guidelines. To the extent that an applicant's facilities, as proposed, are not in compliance with the FCC's guidelines, the City may require the applicant to make appropriate modifications to the facilities to ensure compliance.

Telecommunications Commission Review

The City of Milpitas Telecommunication Commission reviewed this project on April 16, 2007 and May 21, 2007. At the April 16, 2007 Telecommunication Commission meeting, the Telecommunication Commission requested the RF Study be revised to account for future residential development adjacent to the project site. The applicant agreed and revised the RF report that was reviewed by the Telecommunication Commission on May 21, 2007. Based on the revised RF study, the Telecommunication Commission recommends approval of the proposal to the Planning Commission. The unapproved Telecommunication meeting minutes are attached to this report.

RECOMMENDATION

Close the Public Hearing. Approve Use Permit No. UP2006-13 and "S" Zone Approval Amendment No. SA2006-23 based on the Findings and Special Conditions of Approval listed below:

FINDINGS

1. As conditioned, the proposed antenna/monopole at this location will not be detrimental or injurious to the surrounding development nor to the public health and safety, as reviewed by the Telecommunications Commission Committee in regards to equipment and safety issues.
2. As conditioned, the proposed use meets the intent of the General Plan and Zoning Ordinance by providing for alternate telecommunications services for the conduct of commercial and personal business without creating aesthetic disharmony at the site or impacts on surrounding development.
3. As conditioned, the proposed telecommunication facility meets the objectives of the Midtown Design Guidelines through unobtrusive design and a minimal visual impact to the area.
4. As conditioned, the project will not result in any significant visual or aesthetic impacts because the proposed antennae/monopole is visually disguised within a flagpole and the associated equipment will be concealed within an existing storage unit.
5. The project is categorically exempt from further environmental review pursuant to Class 3, Section 15303 – "New construction or conversion of small structures … installation of small new equipment and facilities in small structures".

SPECIAL CONDITIONS OF APPROVAL

1. Use Permit No. UP2006-13 and 'S' Zone Approval Amendment No. SA2006-23 are for a telecommunications antenna facility consisting of 1'x4'-6" six panels housed within a 50' tall and 20" diameter flagpole located in front of the storage facility's main office building and installation of associated equipment cabinets inside an existing storage unit as shown on approved plans dated June 13, 2007, except as may be otherwise modified by these conditions of approval. Any future addition of antennas or modification to approved plans, shall require further review and approval by the Milpitas Telecommunications Commission and Planning Commission. (P)

2. Any change in any dimension or location of the proposed antenna, cabinets, and enclosure from that shown on the plans approved June 13, 2007, shall require an amendment to this Use Permit and 'S' Zone, which will require a noticed public hearing. (P)
3. This use shall be conducted in compliance with all appropriate local, state and federal laws and regulations and in conformance with the approved plans. (P)
4. Prior to building permit final, the applicant shall enhance the landscaping around the base of the flagpole to provide screening of the metal enclosure for the coax stub-ups and to soften the thickness of the flagpole to the approval of the Planning Division. (P)
5. The applicant shall show detail of the decorative sphere on the construction drawings. The decorative sphere shall be proportional to the thickness of the flagpole.
6. The infill wall and access door shall match existing materials and colors.
7. Prior to facility installation, plans shall be submitted that show how the project complies with the following requirements (F):
   a. Approved access shall be provided to the equipment. Verify KNOX lock (quantity and location to be determined by the Fire Dept. if none exists) for Fire Department access. CFC (California Fire Code) Section 902.4.
   b. Equipment shall be posted with signage identifying the company name and the site identification number.
   c. The location shall be labeled for the hazard with a sign approved for location and content by the Fire Department. Signage shall conform to the NFPA 704 standards
   d. Each antenna shall be identified to denote its function, i.e., transmitter or receiver antenna when located on roof structures or other places subject to close proximity to humans.
   e. Shutdown of transmitter antenna(s) shall be provided. Written shutdown procedures (including remote shutdown) shall be provided to the Milpitas Fire Department Inspector at the time of inspection. Fire Department inspection shall include system shutdown.
   f. For remote shutdown process, the phone number, the specific SITE I.D. number shall be posted outside of the equipment enclosure, on the face of the wireless equipment cabinet, at the electrical equipment (if different location than the wireless equipment), roof hatch, fire control, and other access points to the transmitter antennae.
   g. If manual shutdown mechanism is located on site, the shutdown mechanism shall be identified.
   h. Prior to final permit signoff, the installer shall call for an inspection by the Fire Department to verify labeling, signage and transmission shutdown.
8. If at the time of project conformance with conditions of approval there is a project job account balance due to the City for recovery of review fees, review of plans will not be initiated until the balance is paid in full. (P)
9. The proposed Antenna (flagpole) shall be locate at the minimum 20-foot back from the S. Main Street face of curb. No permanent structure is permitted within the City easements. (E)
10. Prior to building permit issuance, the developer must pay all applicable development fees, including but not limited to plan check and inspection deposit, and a 2.5% building permit automation fee. (E)

11. The US. Environmental Protection Agency (EPA) has empowered the San Francisco Bay Regional Water Quality Control Board (RWQCB) to administer the National Pollution Elimination Discharge System (NPDES) permit. The NPDES permit requires all dischargers to eliminate as much as possible pollutant from entering our receiving waters. Contact the RWQCB for question regarding your specific requirements at (800) 794-2482. For general information, contact the City of Milpitas at (408) 586-3329. (E)
12. It is the responsibility of the developer to obtain any necessary permits or approvals from affected agencies or private parties. Copes of any approvals or permits must be submitted to the City of Milpitas Engineering Division. (E)
13. The Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program shows this site to be in Flood Zone "X". (E)

(P) = Planning Division
(F) = Fire Department
(E) = Engineering Division

City of Milpitas
Approved Minutes
Telecommunications Commission
April 16, 2007

I. Call to Order & Roll Call:

Telecommunications Commission Vice Chair Niranjan Gupta called the meeting to order.

Members Present: , D. Gupta, R. Shaw, S. Bansal H. Tran. I Munir, S. Bilgrami, N. Gupta, V. Mathur, and W. Lam

City Council: A. Gomez, B. Livengood

I.S. Staff: B. Marion, E. Pasion

Members Absent: Albert Alcorn P. Peterson

II. Pledge of Allegiance:

The members of the Commission recited the Pledge of Allegiance.

III. Announcements:

No announcements were made for the record.

IV. Approval of the Agenda:

Motion to approve the agenda as submitted.

M/S I. Munir / D. Gupta Ayes: 9

V. Approval of the Minutes March 19, 2007

Motion to approve the minutes as amended.

M/S D. Gupta / I. Munir Ayes: 9

VI. Citizen's Forum

No comments made for the record.

VII. Continued-New Business:

1. T-Mobile Cellular Mono Pole 1680 S. Main

Planning staff introduced the T-Mobile cellular monopole installation proposal at 1680 South Main Street. T-Mobile is seeking approval to install a 45-foot cellular monopole antenna at an existing storage facility business. T-Mobile has redesigned the project several times in the past and has committed to provide a non-obtrusive option to provide cellular coverage in this area

of the city. The technology is similar that has been approved in previous requests from T-Mobile. The area surrounding the T-Mobile cellular site is planned for future high-density residential homes.

The Commissioners questioned if a new technical study was done citing the potential cellular coverage pattern with respect to the future residential developments being planned and that if that was considered as part of the application.

Representatives with T-Mobile noted that it was not initially considered has part of the application at that time.

The Commissioners asked if new and detailed reports would be done to address these concerns for the record and as part of the documentation.

T-Mobile agreed with the concerns of the commission and offered to submit another report addressing their concerns regarding the cellular coverage with respect to the proximity of the planned residential development.

The commissioner requested that this item be brought back at it May 21st meeting to review this project request.

Motion to continue the item to the May 21 commission.

M/S N. Gupta / R. Shaw Ayes: 9

2. Review of Cable Studio Policy Working Group

Staff noted that the commission-working group did not formally meet to discuss policy review. Commissioner D. Gupta added that meetings were focusing advertising of the future public access channel and the second item would address programs that would be scheduled on the cable 26.

Commissioner D. Gupta noted that the working group has created a handout brochure for the upcoming commissioners annual recognition event and invite them to create programs and tour the public access studio. Staff will present to answer questions and give tours of the facility. Staff added it would be opportunity to recruit community volunteers to help operate and create content for the cable channel.

Hands-on training will be given to staff and the commissioners interested in operating the channel. However, in the meantime programming will need to be created before any is shown on the cable channel. Commissioner D. Gupta also added that the web site has also been designed and is ready for visitors interested in creating programming for the for cable 26.

Commissioner Bilgrami noted that the website is ready for use. Workflow matters are being addressed and the commission will have the ability to review requests. Staff noted that the MilpitasTV.org website will eventually have a link from the city's web page. Commissioner D. Gupta noted the user policies have been added to the web site for the potential users to review as part of the application process. The website has detailed information that can be viewed by the commissioners that can aid in the programming content submittal and review process.

Commissioner D. Gupta added that the programming schedule will publish and submitted for public notice. He reiterated that the contents of the program is still being worked out and will be addressed in the next 30 days.

Motion to note receipt and file.

M/S I. Munir / R. Shaw Ayes: 9

3. Cable Studio Equipment and Training.

Commissioner D. Gupta noted that working group needs to address the training on the use of the equipment.

Staff noted testing and software updates are being done. On going testing is being done to all of the equipment. Staff noted that the public access studio will be open for the commissioners' recognition event.

Staff noted that a grand opening event will be the next item for the commission to considered for the.

City Councilmember Bob Livengood suggested that the commission plan for an early evening weeknight would possibly work best for the city officials to attend the commission's event.

Staff noted that numerous group has requested use of the studio to record programs.

Commissioner Munir noted that the commissions produce a introduction video to invite the community create content for the new public access channel.

Commissioner Bilgrami asked that if there was other ways to view the cable 26. Staff noted that it would review that an internet connection be feasible. Commissioner D. Gupta suggested that the commissioners sign up for the basic cable to receive cable 15 and 26.

Motion to have the working group review the tentative plan for a grand opening event for the public access studio on either May 21 or June 4.

M/S D.Gupta / V. Mathur Ayes 9

Motion to note receipt and file.

M/S N. Gupta / D. Gupta Ayes: 9

4. March '07 I.S. Monthly Report.

Bill Marion, Director of Information Services, reported on the highlights of the Information Services Department.

Telecom Master Plan Equipment replacement schedule. New plan for 2007 for 2008-2009-budget cycle. Similar review for the commission to review on a Saturday work session. Programmed over the next several years. Set a date sometime during the summer for review.

Pilot project Silicon Valley Interoperability project. Involve Milpitas, San Jose and Santa Clara county emergency 911 systems. Milpitas is hosting the system in the city's data center. Real time event tracking for analysis of possible threats. Home Land Security project. Side benefit, ability to hand off request calls to the proper agency with the minimal amount of work.

Additional fiber optic cable through Able Street to the added to the Croalice Sr. Center and Milpitas Fire station one and station four. The ability will provide fiber redundancy and communications back up in the event that a line is accidentally severed. Staff reported that it would allow for the connection to the new library location.

The Milpitas Permitting system was launched on March 1st. and the next modes of ability for voice messing and scheduling for the users and the city departments to offer to the public.

The city website went over one million hits in March. The hits with various visits to the numerous section of the city's website through Google, ABAG and direct URLs.

Motion to note receipt and file.

M/S N. Gupta / V. Mathur Ayes: 9

5. Round Table Discussion

Commissioner Lam reported to that he is continually experiencing slow Internet access speed with the Comcast. He noted that a Comcast technician has already tested the connection to his residence and no problem with the equipment. He and Comcast cited that age of the equipment in Milpitas.

Staff reported that Comcast has started upgrading the city's cable network to offer much faster access speeds.

Comcast will be replacing specific cable node equipment throughout the city to improve the service and speeds.

Staff reported that it would seek intervention with the new Comcast cable representative but reiterated to the Commission that the city has no jurisdictional authority over the Comcast Internet service based on a federal ruling designating Internet service as an inter-state product. However, staff will contact the new Comcast representative on behalf of Commissioner Lam.

Staff also reported that Comcast has announced that it has named Laura Macia as that new replacement for the Eddie Garcia. The commission would like to invite the representative to the grand opening.

Commissioner Bansal asked about the Earthlink WiFi contract obligation

Staff reiterated that the annual Commissioners Recognition event is scheduled for the Wednesday, April 18 at City Hall. Commission asked if the City Council should see the public access facility prior to the Wednesday evening event.

Motion note receipt and file

D. Gupta / W. Lam Ayes 9

VIII. Adjournment of Meeting

The Commission adjourned the meeting to Monday, May 21, 2007.

# # #

City of Milpitas
Unapproved Minutes
Telecommunications Commission
May 21, 2007

I. Call to Order & Roll Call:

Telecommunications Commission Chair Albert Alcorn called the meeting to order.

Members Present: A. Alcorn, D. Gupta, R. Shaw, S. Bansal, H. Tran. I Munir, S. Bilgrami, N. Gupta, and W. Lam

City Council: J. Esteves

I.S. Staff: B. Marion, E. Pasion

Members Absent: V. Mathur P. Peterson

II. Pledge of Allegiance:

The members of the Commission recited the Pledge of Allegiance.

III. Announcements:

No announcements were made for the record.

IV. Approval of the Agenda:

Motion to amend the agenda to add Milpitas TV organization chart discussion.

M/S I. Munir / N. Gupta Ayes: 9

V. Approval of the Minutes April 16, 2007

Motion to approve the minutes as amended.

M/S D. Gupta / I. Munir Ayes: 9

VI. Citizen's Forum

Planning Commission Chair Cliff Williams congratulated the commissioners on its recent achievement of completing the creation of the Milpitas public access studio. Mr. Williams encouraged the commission to continue to plan technology goals as its plans to for its next future projects. Mayor Jose Esteves congratulated the commission on its recent accomplishments and also encouraged them to continue the out reach planning for the public access studio.

VII. Continued-New Business:

1. T-Mobile Cellular Mono Pole 1680 S. Main

Cindy Hom with the planning staff reintroduced the T-Mobile cellular monopole installation proposal at 1680 South Main Street.

As requested, T-Mobile has submitted a revised radio frequency analysis documentation involving it proposed installation at 1680 South Main Street.

Chair Alcorn asked how that radio power dissipate over distance. The representative from T-Mobile noted that radio power does dissipate over a greater distance and time. The end by-product is a signal that is much less that what is being generated from an individual's cellular phone.

Commissioner D. Gupta asked of the tilt of the radio beam. T-Mobile noted that the radio signal has a modest tilt being radiated in order to send out the beam.

Motion to approve the project as resubmitted for final review of the planning commission.

M/S I. Munir / H. Tran Ayes: 9

2. Milpitas Television Organization Chart

Commissioner D. Gupta provided an outline of titles of the Milpitas Cable Television organization chart with the following commissioners and their given executive assignments.

Dinesh Gupta, Executive Director
Roger Shaw, Operations Director
Albert Alcorn, Technical Director
Idrees Munir, Marketing and Communications Director
Hai Tran, Program Director
Syed Bilgrami, Information and Technology Director

Motion to approve the nominees for the Milpitas Cable Television Governing Body.

M/S I. Munir / N. Gupta Ayes: 9

3. Round Table Discussion

Chair requested the commission to attend the cable 26 opening event. Chair also requested staff to review of the Master Plan and schedule an offsite meeting.

VIII. Adjournment of Meeting

The Commission adjourned the meeting to Monday, June 18, 2007.

# # #

T-Mobile

April 10, 2007

Cindy Hom
Project Planner
City of Milpitas Planning Division
455 East Calaveras Blvd.
Mountain View, CA 95035

RE: T-Mobile Proposed Wireless Telecommunications Facility
1680 So. Main Street – Saf Keep Storage Yard

Dear Cindy:

T-Mobile respectfully requests Use Permit approval for the installation and operation of a 50 foot "flagpole" facility at 1680 So. Main Street (Saf Keep Storage Yard).

As proposed, a new 20 inch diameter pole will replace an existing (smaller) version. This new pole will continue to function as a flagpole, but will also conceal six (6) T-Mobile antennas. The top portion of the pole will be constructed of fiberglass which allows internally mounted antennas to send and receive signals. The base of the pole will be constructed of steel. Both the fiberglass and steel portions will be painted match.

T-Mobile also proposes to install four (4) ancillary BTS equipment cabinets within an existing storage unit. As designed, all antennas and equipment will be completely concealed from public view.

Please know that T-Mobile has made every effort to design a facility that meets the current and future communication needs of the community while minimizing visual and environmental impacts. T-Mobile is committed to working with staff to ensure the proposed facility best meets the City of Milpitas's land use goals and objectives.

Please feel to contact me at 415-794-2966 should you have any questions. Your consideration of our application is greatly appreciated.

Sincerely,

Chad Abbott
Project Manager
T-Mobile

City of Milpitas
Planning Division
455 E. Calaveras Blvd.
Milpitas, CA 95035
(408) 586-3279

Questionnaire for Telecommunication Facility Providers

All applicants requesting to install telecommunications facilities within the City of Milpitas must complete this questionnaire as part of their use permit application submittal.

Applicant Name: CHAD ABBOTT

Applicant Address: 1011 23 RD STREET, SUITE 3 SAN FRANCISCO, CA 94107

Applicant Phone: 415-794-2966

Applicant Fax and e-mail address: CABBOTT@SUTRDCONSULTING.COM

Provide a brief description of project (Telecommunications Facility): THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT FOR THE T-MOBILE TELECOMMUNICATIONS NETWORK. ALL ANTENNAS AND EQUIPMENT WILL NOT BE VISIBLE TO THE PUBLIC.

Location of Project: 1680 SO. MAIN ST. - SAF KEEP STORAGE FACILITY

1. Please indicate below the frequency range you plan to use?

   - ☐ VHF Low-Band (30-50 Mhz or 72-76 Mhz)
   - ☐ VHF High-Band (136-174 Mhz or 220-222 Mhz)
   - ☐ UHF or T-Band (406-420 Mhz or 450-470 Mhz or 470-512 Mhz)
   - ☐ 800 or 900 Mhz Band (800-960 except 900 Mhz Spread Spectrum)
   - ☐ 900 Mhz Spread Spectrum (902-928 Mhz)
   - ☒ Other than specified above (State frequency band in Mhz). Describe: 1850 - 1990 GSM NETWORK

2. Please indicate below the channel/system proposed for use?

   - ☐ A single channel
   - ☒ Multiple channel
   - ☐ A frequency agile system
   - ☐ A spread spectrum system
   - ☐ Other than specified above. Describe: _____

3. Please indicate below the frequency range you plan to use?

   - ☐ Narrow band (±5 Khz or less deviation)
   - ☒ Broad band (greater than ±5 Khz deviation)
   - ☐ Spread Spectrum
   - ☐ Other than specified above. Describe: _____

4. What will be the effective radiated power (ERP) be when all channels at your proposed site are radiating? _____ Will the site be in compliance with current ANSI radiation health standards? _____ PLEASE SEE ATTACHED EMF REPORT.

5. What horizontal radiation pattern is planned for this project?

- ☐ Omnidirectional
- ☒ Sectored
- ☐ Directional (provide hall power beam width) _____

6. What will the vertical radiation angle (half power beam width) be for your proposed antenna(s)? 27°, 12°, 0°

7. How high above the local terrain (e.g., surrounding structures) will the center of radiation of your proposed antenna(s) be? 10'.5" feet

8. How close to your proposed project is the nearest roadway 120± ft. feet/miles and, if elevated, what is the roadway's height above the local terrain? 60± feet

9. How close to your proposed project is the nearest regularly occupied building and how high is the top floor above local terrain? 50± ft, 20± ft.

10. What is the distance to the nearest existing radio communications or broadcast antenna(s) if less than ½ mile? N/A feet/miles. Answer question 1 for such existing antenna(s) and identify owner/operator, if known.

11. What is the status of your FCC license grant? PLEASE SEE ATTACHED. (Include a *copy of the license with submittal of this questionnaire.)

NOTE: The below listed items are required by the applicant as part of this submittal:

a) Provider's build-out map* showing all sites anticipated within Milpitas (see question no. 2) ATTACHED

b) Photo simulations** of antenna(s) as viewed from at least three surrounding view points. Show "worst case" vantage points. ATTACHED

c) List of all sites that were investigated** for a particular search ring and the reasons why they were discarded. Include names and phone numbers of persons contacted regarding potential sites. ATTACHED

d) Copy of applicants Power Density Study* (see item no. 4). ATTACHED.

* 20 copies (Telecommunication Commission)
** 35 copies (Telecommunication Commission & Planning Commission)

Back of
Telecommunication Questionnaire

Federal Communications Commission
Wireless Telecommunications Bureau
Radio Station Authorization

LICENSEE NAME: Omnipoint NY MTA License, LLC

DAN MENSER
OMNIPOINT NY MTA LICENSE, LLC
12920 SE 38TH STREET
BELLEVUE WA 98006

FCC Registration Number (FRN)	
0002145696	
Call Sign	**File Number**
WPSL624	0002148280
Radio Service	
CW - PCS Broadband	

Grant Date	Effective Date	Expiration Date	Print Date
06-30-2005	06-30-2005	06-23-2015	07-01-2005

Market Number	Channel Block	Sub-Market Designator
MTA004	B	16

Market Name: San Francisco-Oakland-San Jose

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

SPECIAL CONDITIONS OR WAIVERS/CONDITIONS

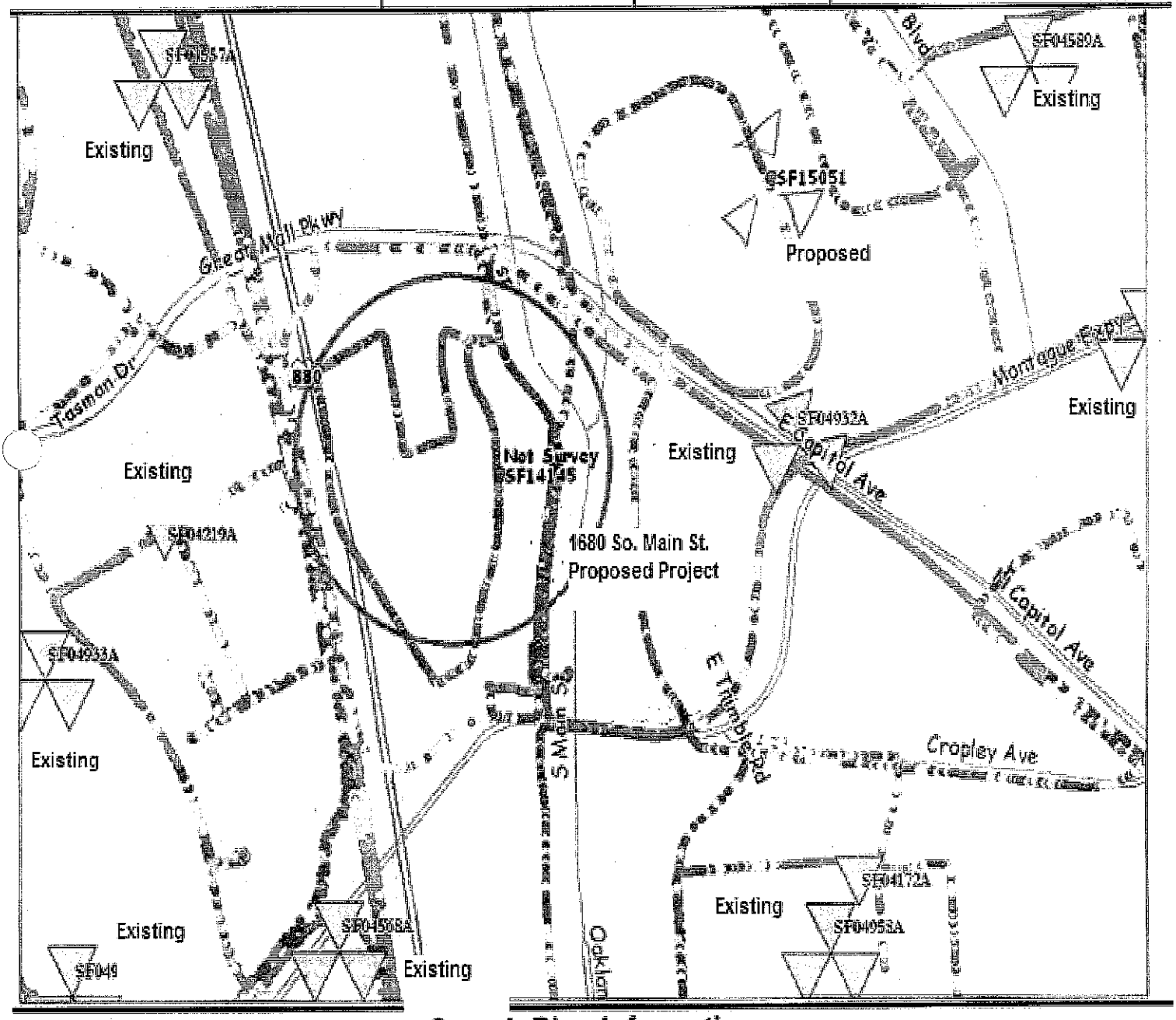
The licensee hereof is authorized for the period indicated, to operate a radio transmitting station in accordance with the terms and conditions hereinafter described. This authorization is subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts of Congress, International treaties and agreements to which the United States is a signatory, and all pertinent rules and regulations of the Federal Communications Commission, contained in Title 47 of the code of Federal Regulations.

Conditions:
Pursuant to Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. Section 309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. Section 310(d). This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended. See 47 U.S.C. Section 606.

A graphical representation of the geographic area authorized to this call sign may be generated by selecting Search 'Licenses' at the following web address: http://wireless.fcc.gov/uls/index.html.

Existing and Proposed T-Mobile Sites

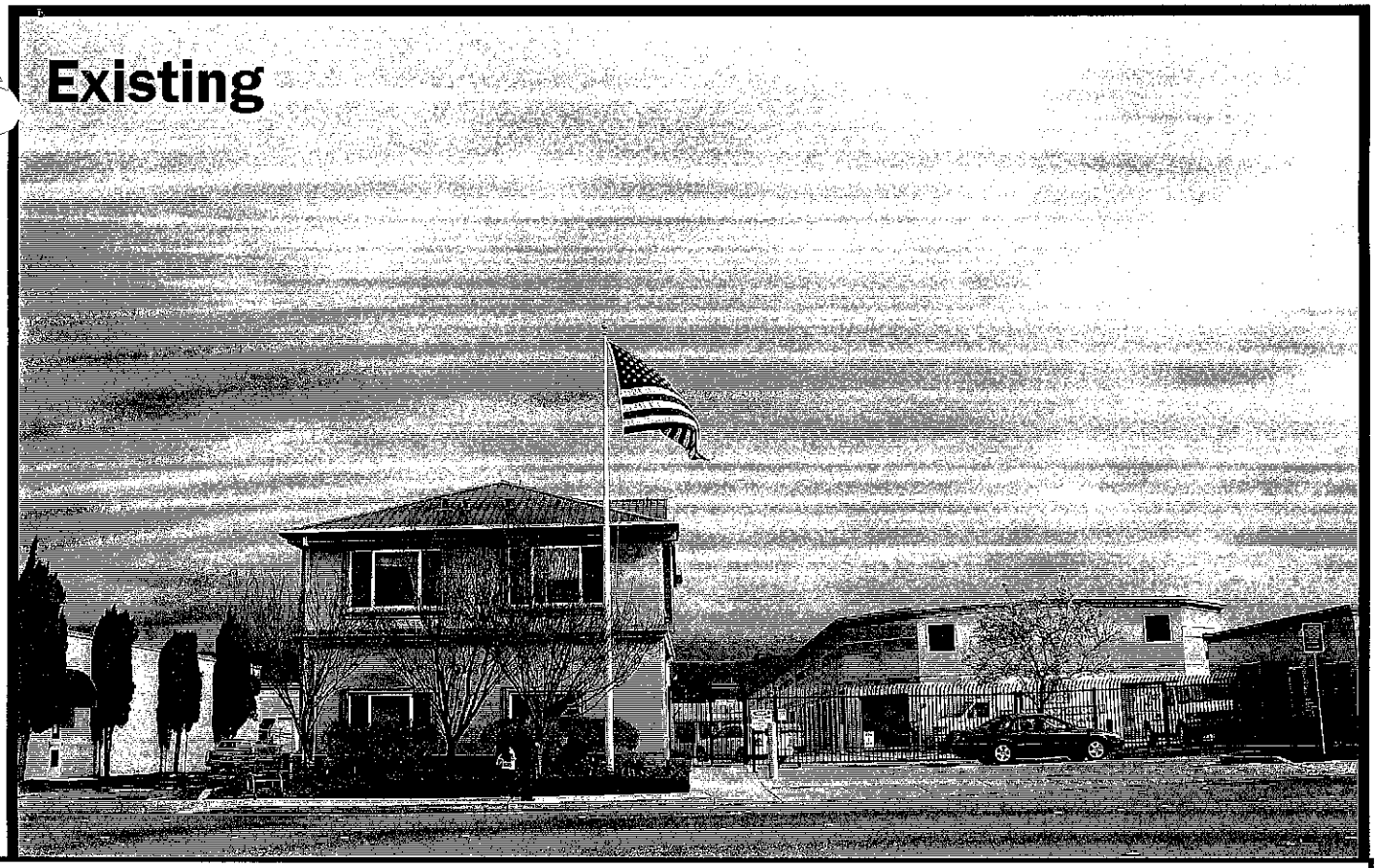
T-Mobile: Get more from life	Search Area Map	Search Ring ID	SF14145
		Site Name:	S Able St and S Main St



Search Ring Information

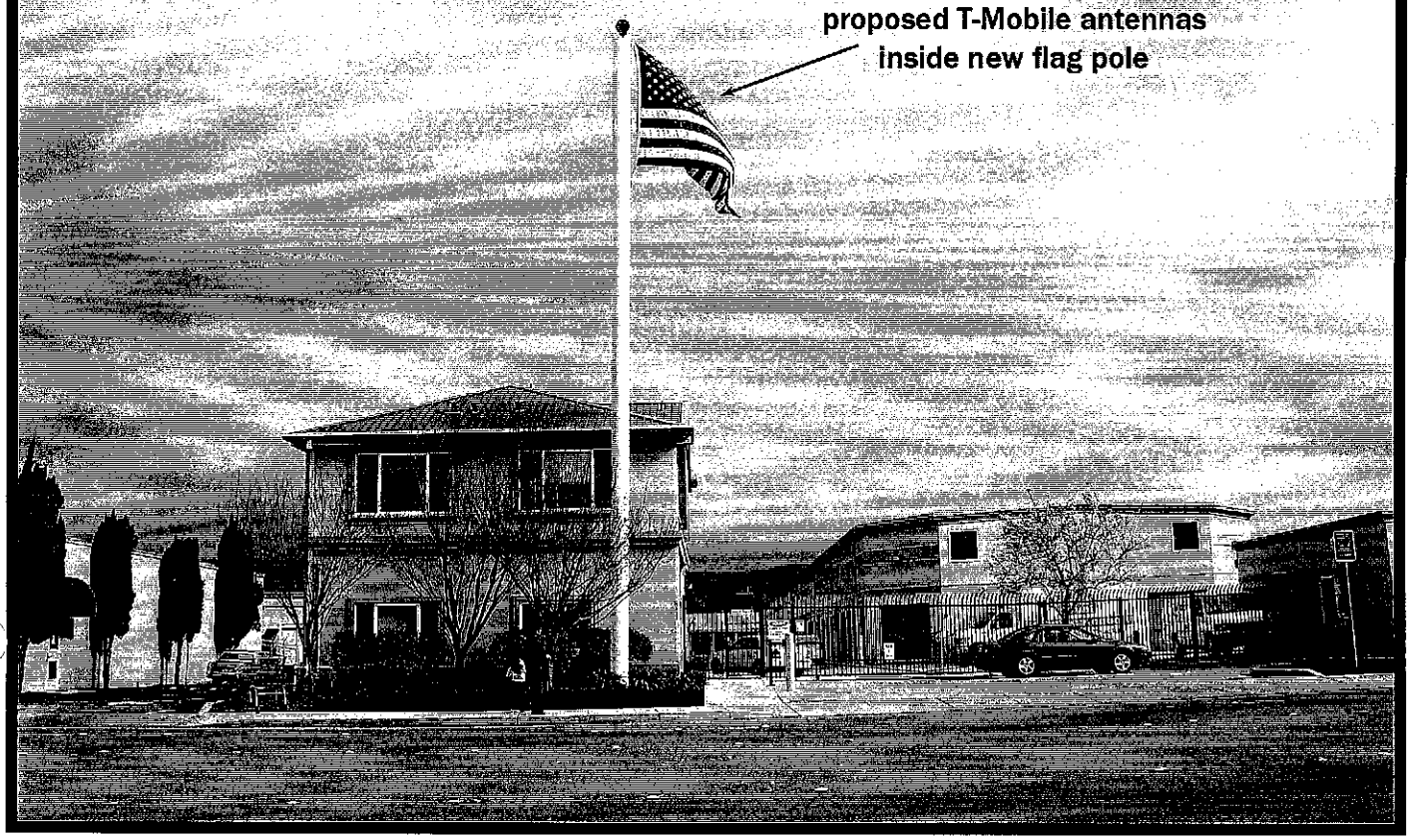
Red = Poor Coverage
Yellow = Marginal to Moderately Good Coverage
Green – Good Coverage

Existing



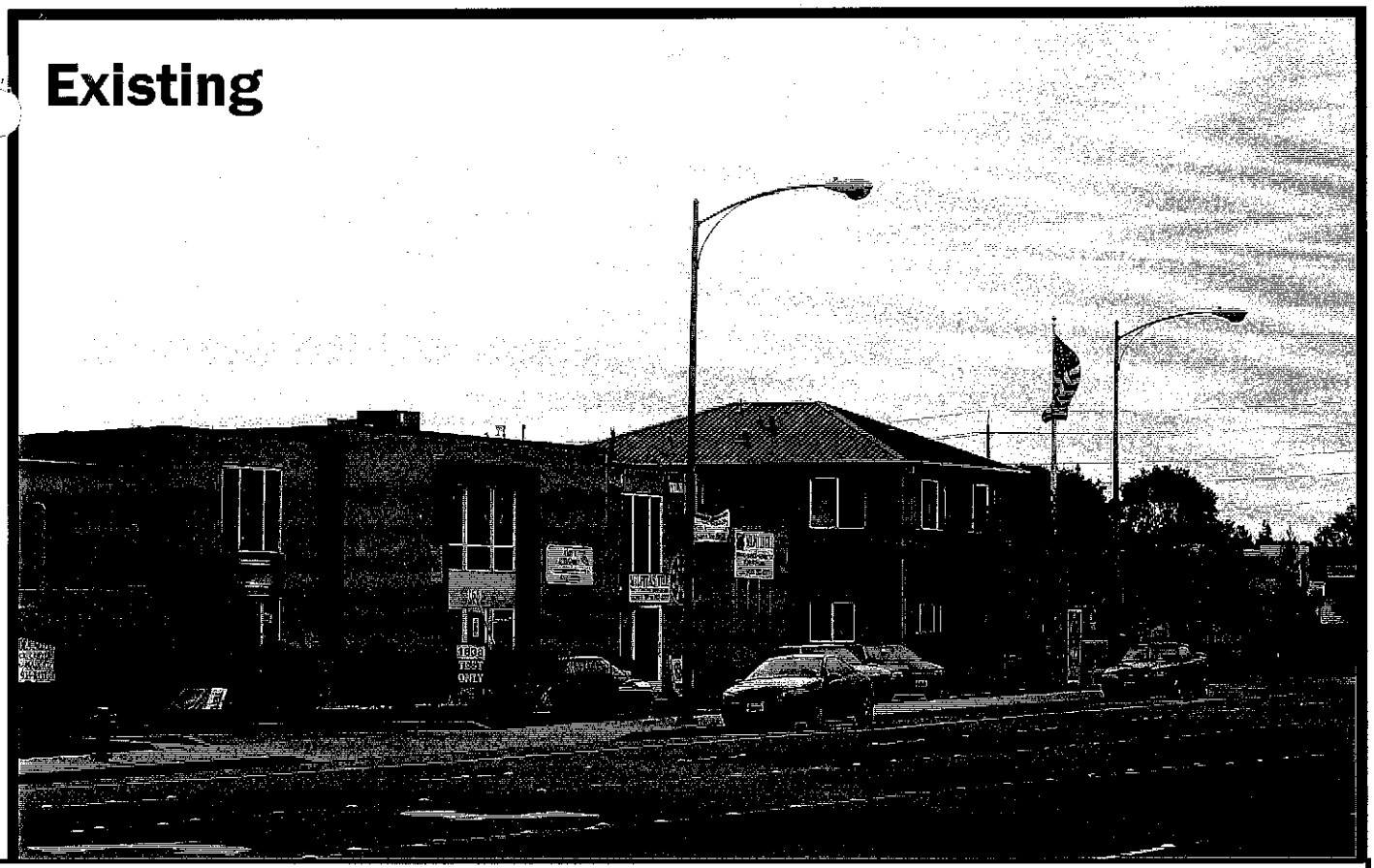
T··Mobile· **SF14145** **SAF Storage** 1680 South Main Street Milpitas, CA 95035

Proposed



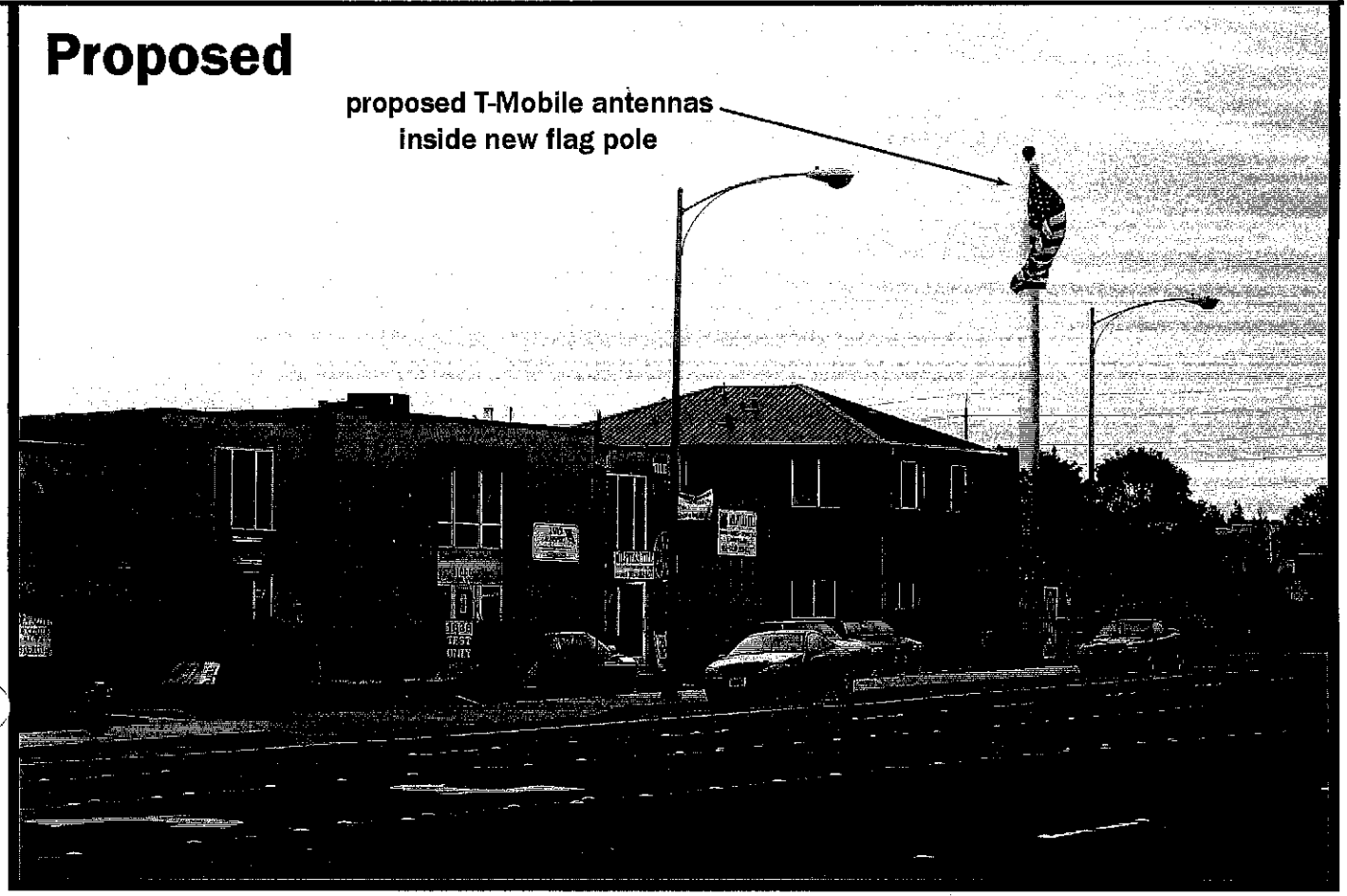
Photosimulation of the proposed telecommunication facility as seen looking east across South Main Street

Existing



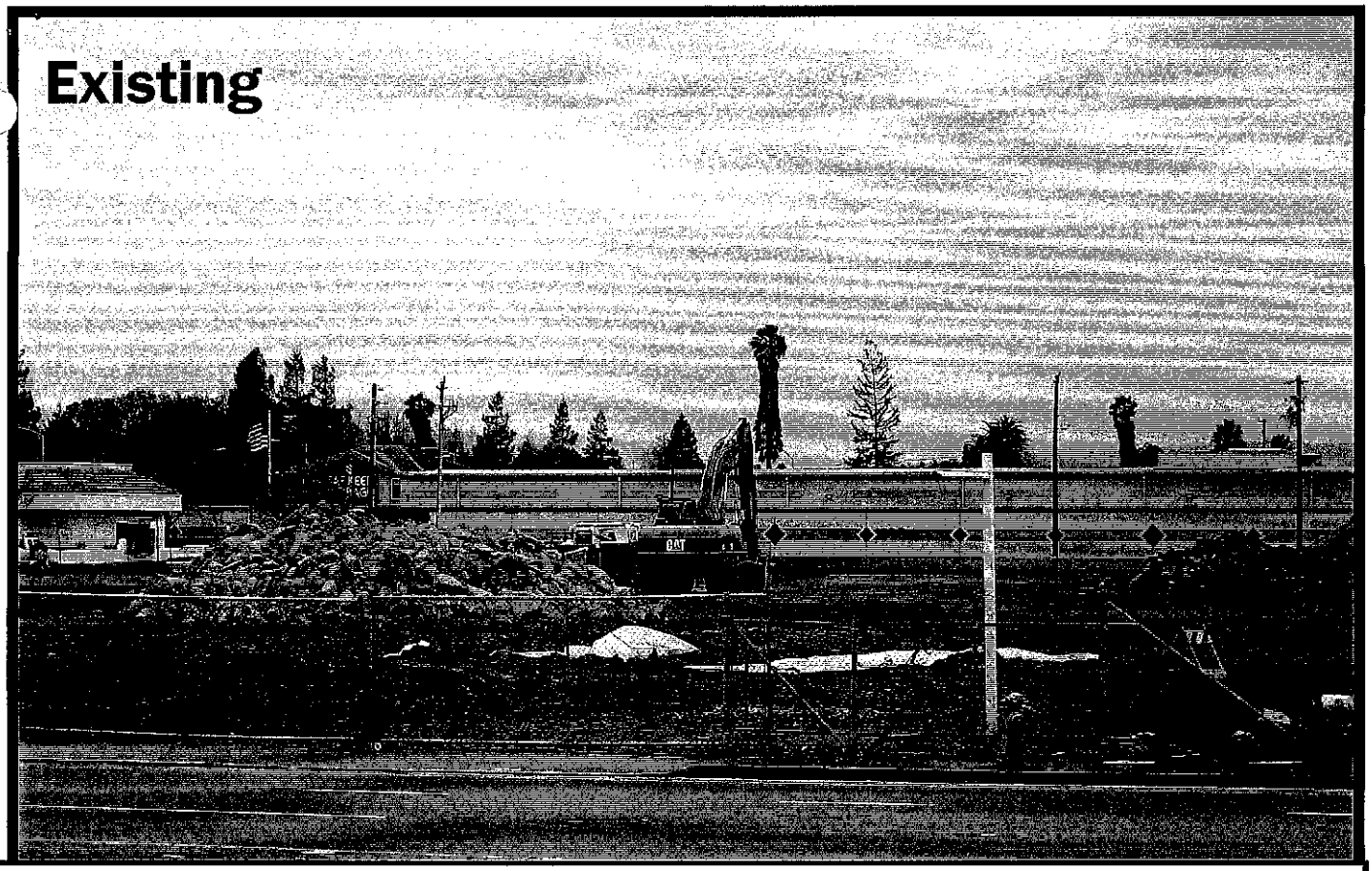
T··Mobile· **SF14145** **SAF Storage** 1680 South Main Street Milpitas, CA 95035

Proposed



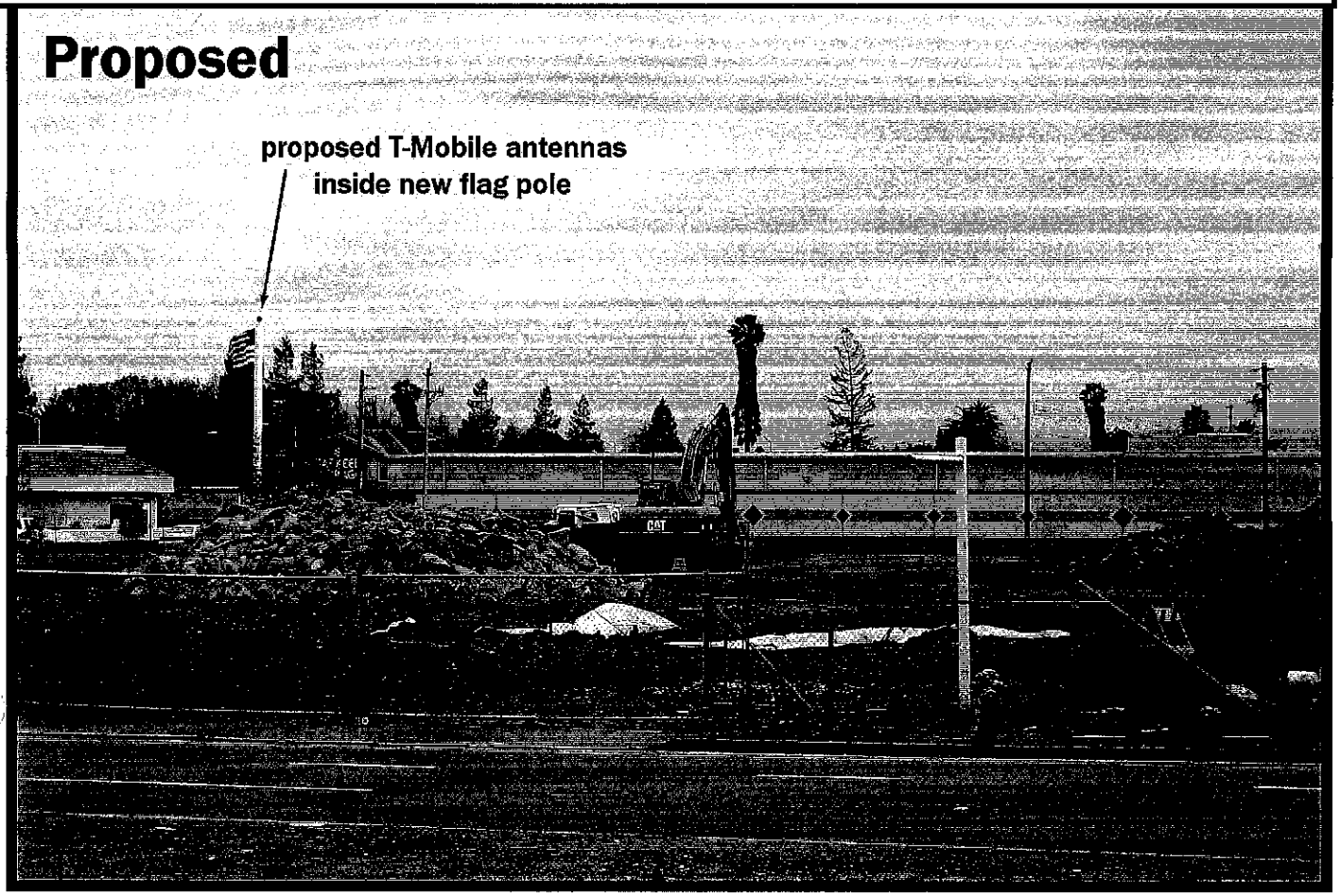
Photosimulation of the proposed telecommunication facility as seen looking southeast along South Main Street

Existing



T··Mobile· **SF14145** **SAF Storage** 1680 South Main Street Milpitas, CA 95035

Proposed



Photosimulation of the proposed telecommunication facility as seen looking north from Montague Expressway

Alternative Sites Investigated

The search area in question is primarily made up of residential areas to the East and Commercial/Light Industrial properties to the West. Only three (3) existing properties/buildings in this search area offer the height necessary to provide adequate network coverage. Please note: Monopole options were not thought to be an appropriate design solution for this area. In addition to the proposed project location, the following sites were also investigated:

Liberty Plaza – 1200 S. Main Street. This property is identified as candidate A on the attached aerial map. It can be described as a 2 story commercial strip mall located just north of the Radio Frequency (RF) Team's defined search area. This candidate offered adequate height for antennas. The property owner is willing to lease space for an installation. Ultimately T-Mobile's RF engineering team determined that this location was too close to an existing site and that it would not adequately cover a desired area to the South. Owner Contact: Long V. Nguyen, 408-956-0588.

South Bay Tech Center – 1601 S. Main Street. This property is identified as candidate B on the attached aerial map. It can be described as a 2 story commercial office building. This candidate offered adequate height for antennas, but limited equipment space on the ground (without absorbing multiple parking spaces and landscaping). This property is also adjacently located to several single-family residential homes (to the north and west). The property owner was approached several times but did not respond calls or letters. Owner Representative Contact: 408-453-7400.


Alder Dr
W Capitol Ave
Liberty Plaza
Woodland Way
Sycamore Dr
Lonetree Ct
Montague Expy
E Capitol Ave
South Bay Tech Center
Saf Keep Storage
Sango Ct
Buckeye Dr
Cottonwood Dr
Fallen Leaf Dr
Barber Ln
Trade Zone Blvd
Lundy Pl
880
© 2006 NavTeq
Google
Pointer 37°24'31.23" N 121°54'02.79" W elev -36 ft
Streaming 100%
Eye alt 8268 ft

XPol Panel Antennas

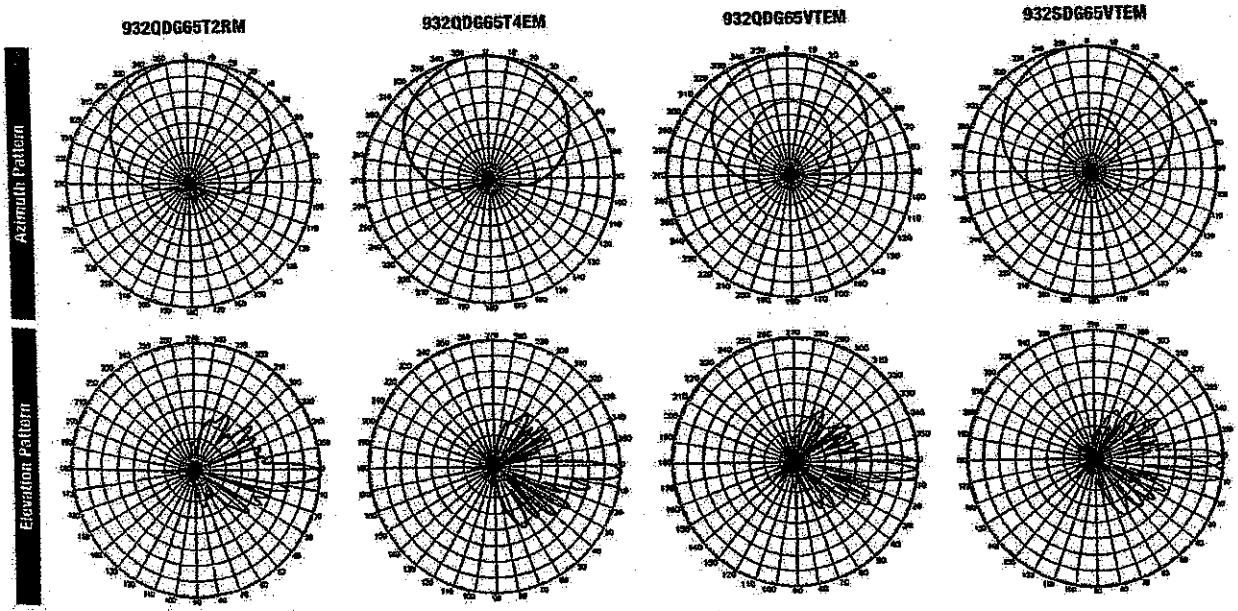
1710 - 2170 MHz

HORIZONTAL BEAMWIDTH	65°	65°	65°	65°
FREQUENCY RANGE	1850-1990 MHz	1850-1990 MHz	1850-1990 MHz	1850-1990 MHz
	QUAD ARRAY	QUAD ARRAY	QUAD ARRAY	HEX ARRAY
	18 dBi / 2° Tilt	17.7 dBi / 4° Tilt	17 dBi / 1° to 8° Tilt	17 dBi / 1° to 8° Tilt
**MODEL	932QDG65T2RM	932QDG65T4EM	932QDG65VTEM	932SDG65VTEM
TYPE	±45° Diversity Quad	±45° Diversity Quad	±45° Diversity Quad	±45° Diversity Panel, Six Port
ELECTRICAL SPECIFICATIONS				
Frequency Range (MHz)	1850-1990	1850-1990	1850-1990	1850-1990
Gain (dBd/dBi)	15.9 / 18	15.6 / 17.7	14.9 / 17	14.9 / 17
Horizontal Beamwidth (Deg.)	65	65	65	65
Elevation Beamwidth (Deg.)	6	7	6.5	6.5
USLS (dB)	16	>18	>14	>14
Null Fill (dB) – Below Peak	N/A	N/A	N/A	N/A
Beam Tilt (Deg.)	2	4	1-8	1-8
VSWR	<1.33:1	<1.33:1	<1.4:1	<1.4:1
Front-To-Back Ratio (dB)	32	32	30	30
Isolation (dB)	>30	>30	>30	>30
Max. Input Power (Watts)	250	250	250	250
Polarization	+45°/-45°	+45°/-45°	+45°/-45°	+45°/-45°
Connector Location	Top	Bottom	Bottom	Bottom
Connector Type	7-16 DIN - Female	7-16 DIN - Female	7-16 DIN - Female	7-16 DIN - Female
MECHANICAL SPECIFICATIONS				
Length (inch/mm)	51.5 / 1,308	51.5 / 1,308	51.5 / 1,308	51.5 / 1,308
Width (inch/mm)	13.5 / 343	13.5 / 343	14 / 356	20.5 / 521
Depth (inch/mm)	3 / 76	3 / 76	3 / 76	3.5 / 89
Net Weight (lbs/kg)	20.4 / 9.2	20.4 / 9.2	24 / 10.9	36 / 16.3
Max. Flat Plate Area (ft²/m²)	2.58 / 0.24	2.58 / 0.24	2.58 / 0.24	3.77 / 0.35
Max. Wind Load at 100 mph (lbf/N)	139 / 620	139 / 620	144 / 642	205 / 912
Max. Wind Speed (mph/kmh)	125 / 201	125 / 201	125 / 201	125 / 201
Radome Material	Polycarbonate, UV Resistant	Polycarbonate, UV Resistant	Polycarbonate, UV Resistant	Polycarbonate, UV Resistant
Reflector Material	Pass. Aluminum	Pass. Aluminum	Pass. Aluminum	Pass. Aluminum
Radiator Material	Aluminum	Aluminum	Aluminum	Aluminum
Hardware Material	Galvanized Steel	Galvanized Steel	Galvanized Steel	Galvanized Steel
Color	Light Gray	Light Gray	Light Gray	Light Gray
Std. Mounting Hardware	DB380	DB380	DB380	DB380
Optional Downtilt Kit	DB5083	DB5083	DB5083	DB5083
Optional Special Mounting	N/A	N/A	N/A	N/A

Specifications are subject to change. Please see our website for the latest information.

*TELETILT® compatible.

**When ordering UMWD/ADFD series antennas, add an "M" to the end of the model number to include mounting hardware. The standard mounting hardware for the UMWD/ADFD antennas includes mechanical downtilting.



Scale: 10° radials, 5 dB per division

Diamond Services
3860 Industrial Way
Benicia, Ca 94510
Ph: (707) 751-5900
Fax: (707) 751-5901

RADIO FREQUENCY ANALYSIS
PROPOSED T-MOBILE SITE NO. SF14145
"S. ABLE & MAIN ST."
1680 SOUTH MAIN STREET,
MILPITAS, CALIFORNIA

By: Diamond Services
Date 04/27/2006

Diamond Services
3860 Industrial Way
Benicia, Ca 94510
Ph: (707) 751-5900
Fax: (707) 751-5901

Report Summary

Based upon information provided by T-Mobile and the design engineer, and using the calculated method for determining RF field strength, it is the engineer's opinion that the telecommunication facility which will be located at 1680 South Main Street, Milpitas, California will comply with the FCC's current prevailing standard for limiting human exposure to RF energy.

Due to the mounting method utilized, the general public would not normally be able to approach the antennas. Therefore, no significant impact on the general population is expected. The calculated electromagnetic field strength level in publicly accessible areas is less than the existing standard allows for exposure of unlimited duration. Additionally, due to the mounting method used, no significant impact on the environment is expected.

General Recommendations

For personnel who maintain or work near the antennas, a training program in exposure to RF fields is recommended, since any access closer than ten feet to the face of a T-Mobile antenna at this site could expose personnel to RF field levels greater than the occupational limits, and such access should be prohibited. At this site, public access to the face of an antenna is not expected. Maintenance personnel should be instructed to contact T-Mobile prior to working in front of an antenna.

RF warning signs should be placed at the roof access point(s) and near the antennas.

The roof access point(s) should be kept locked.

RF exclusion zones should be painted on the roof for a distance of up to ten feet in front of the antennas which are directed over roof surfaces.

Background

Diamond Services[1] has been retained by T-Mobile to conduct a Radio Frequency (RF) electromagnetic analysis for a proposed telecommunication facility to be located at 1680 South Main Street, Milpitas, California. This analysis consists of a review of the proposed site conditions, calculation of the estimated RF field strength of the telecommunication facility, and the provision of a comparison of the estimated field strength with the Federal Communication Commission (FCC) recommended guidelines for human exposure to RF electromagnetic fields.

1 PGI Group Incorporated d.b.a. Diamond Services

Site Description

Based upon the drawings provided by the design engineer, six proposed panel antennas will be mounted behind roof mounted FRP screening walls. The antennas will be mounted approximately 23'- 7" (to bottom of antennas) above ground level and approximately 2' – 10" (to bottom of antennas) above roof level.

The antennas will be oriented such that the main lobes are oriented toward the horizon. Normal public access to the front of the antennas is not expected due to the mounting location and method utilized. Occupational access to the front of the antennas is expected.

RF Field Strength Calculation Methodology

A generally accepted method is used to calculate the expected RF field strength. The method uses the FCC's recommended equation[2] which predicts field strength on a worst case basis by doubling the predicted field strength. The following equation is used to predict maximum RF field strength:

Equation 1 $$S = \frac{(2)^2 PG}{4\pi R^2} = \frac{PG}{\pi R^2} = \frac{EIRP}{\pi R^2}$$

Where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

The ground level effect of the T-Mobile emissions was calculated using a maximum downtilt of 5°, and a maximum ERP of 1531 watts. Results were calculated for a height of 6'-6" above ground level. Using these factors, the maximum calculated T-Mobile fields at ground level are 3.03% of the existing standard for general population uncontrolled exposure.

RF levels on the roof are calculated to exceed the occupational limits for a distance of ten feet in front of the antennas which are directed over roof surfaces.

2 Reference Federal Communication Commission Office of Engineering Technology Bulletin 65

Calculations were performed for the main antenna lobe, the -3dB point, and the first and second lower lobes.

See Table 1 for the FCC's guidelines on Maximum Permissible Exposure (MPE). Note that the RF range referenced for this analysis is the range of 1500 – 100,000 Mhz shown in Table 1, which is included in Appendix A.

Exposure Environments

The FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. The decision as to which tier applies in a given situation should be based on the application of the following definitions.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

For purposes of applying these definitions, awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. Warning signs and labels can also be used to establish such awareness as long as they provide information, in a prominent manner, on risk of potential exposure and instructions on methods to minimize such exposure risk. For example, a sign warning of RF exposure risk and indicating that individuals should not remain in the area for more than a certain period of time could be acceptable.

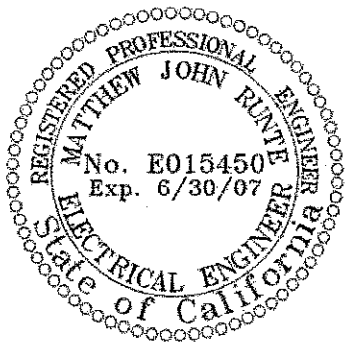
Another important point to remember concerning the FCC's exposure guidelines is that they constitute ***exposure*** limits (not ***emission*** limits), and they are relevant only to locations that are ***accessible*** to workers or members of the public. Such access can be restricted or controlled by appropriate means such as the use of fences, warning signs, etc., as noted above. For the case of occupational/controlled exposure, procedures can be instituted for working in the vicinity of RF sources that will prevent exposures in excess of the guidelines. An example of such procedures would be restricting the time an individual could be near an RF source or requiring that work on or near such sources be performed while the transmitter is turned off or while power is appropriately reduced.

Qualifications of Reporting Engineer

Mr. Runte has been involved in the measurement of RF emissions since 1979. He has designed numerous RF systems including both site design and RF system design. He is a registered Professional Engineer in the state of California, and all contents of this report are true and correct to the best of his knowledge.

Signed: _____ Date: 04/27/2006

Matthew J. Runte, P.E.



Professional Engineer Stamp

APPENDIX A

Term Definitions

Exposure Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.

Exposure, partial-body. Partial-body exposure results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources or in the near field.

General population/uncontrolled exposure. For FCC purposes, applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Maximum permissible exposure (MPE). The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.

Occupational/controlled exposure. For FCC purposes, applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see definition above), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

RADIO FREQUENCY ANALYSIS
PROPOSED T-MOBILE SITE NO. SF14145
"SAF KEEP STORAGE"
1680 SOUTH MAIN STREET,
MILPITAS, CALIFORNIA

By: Matthew Runte
Date 05/03/2007

Report Summary

Based upon information provided by T-Mobile and the design engineer, and using the calculated method for determining RF field strength, it is the engineer's opinion that the telecommunication facility which will be located at 1680 South Main Street, Milpitas, California will comply with the FCC's current prevailing standard for limiting human exposure to RF energy.

Due to the mounting method utilized, the general public would not normally be able to approach the antennas. Therefore, no significant impact on the general population is expected. The calculated electromagnetic field strength level in publicly accessible areas is less than the existing standard allows for exposure of unlimited duration. Additionally, due to the mounting method used, no significant impact on the environment is expected.

General Recommendations

For personnel who perform maintenance near or work near the antennas, a training program in exposure to RF fields is recommended, since any access closer than seven feet to the face of a T-Mobile antenna at this site could expose personnel to RF field levels greater than the occupational limits, and such access should be prohibited. At this site, public access to the face of an antenna is not expected. Maintenance personnel should be instructed to contact T-Mobile prior to working in front of an antenna.

RF warning signs should be placed at the base of the flagpole.

Background

Matthew Runte has been retained by T-Mobile to conduct a Radio Frequency (RF) electromagnetic analysis for a proposed telecommunication facility to be located at 1680 South Main Street, Milpitas, California. This analysis consists of a review of the proposed site conditions, calculation of the estimated RF field strength of the telecommunication facility, and the provision of a comparison of the estimated field strength with the Federal Communication Commission (FCC) recommended guidelines for human exposure to RF electromagnetic fields.

Site Description

Based upon the drawings provided by the design engineer, six proposed antennas will be mounted inside a new flagpole. The antennas will be mounted approximately 37' – 3" (to bottom of lowest antennas) above ground level.

The antennas will be oriented such that the main lobes are oriented toward the horizon. Normal public access to the front of the antenna is not expected due to the mounting location and method utilized. Occupational access to the front of the antennas is not normally expected.

RF Field Strength Calculation Methodology

A generally accepted method is used to calculate the expected RF field strength. The method uses the FCC's recommended equation[1] which predicts field strength on a worst case basis by doubling the predicted field strength. The following equation is used to predict maximum RF field strength:

Equation 1 $$S = \frac{(2)^2 PG}{4\pi R^2} = \frac{PG}{\pi R^2} = \frac{EIRP}{\pi R^2}$$

Where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

The ground level effect of the T-Mobile emissions was calculated using a maximum downtilt of 5°, and a maximum ERP of 400 watts. Results were calculated for a height of 6'-6" above ground level. Using these factors, the maximum calculated field at ground level is 0.0019 mW/cm^2. This equates to 0.19% of the existing standard for general population uncontrolled exposure.

The in-building (adjacent building) effect of the T-Mobile emissions was calculated using a maximum downtilt of 5°, a maximum ERP of 400 watts, and a roof attenuation of -10 dB. Results were calculated for areas on the second floor of the building. Using these factors, the maximum calculated field at in the building is 0.0020 mW/cm^2. This equates to 0.20% of the existing standard for general population uncontrolled exposure.

The effect of the T-Mobile emissions at the Northerly property line was calculated using a maximum downtilt of 5°, and a maximum ERP of 400 watts. Results were calculated in a vertical plane from ground level to 50' above ground level. Using these factors, the maximum calculated field at the Northerly property line is 0.1721 mW/cm^2. This equates to 17.21% of the existing standard for general population uncontrolled exposure.

The effect of the T-Mobile emissions at the Westerly property line was calculated using a maximum downtilt of 5°, and a maximum ERP of 400 watts. Results were calculated in a vertical plane from ground level to 50' above ground level. Using these factors, the maximum calculated field at the Westerly property line is 0.3059 mW/cm^2. This equates to 30.59% of the existing standard for general population uncontrolled exposure.

1 Reference Federal Communication Commission Office of Engineering Technology Bulletin 65

See Table 1 for the FCC's guidelines on Maximum Permissible Exposure (MPE). Note that the RF range referenced for this analysis is the range of 1500 – 100,000 Mhz shown in Table 1, which is included in Appendix A.

Exposure Environments

The FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. The decision as to which tier applies in a given situation should be based on the application of the following definitions.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

For purposes of applying these definitions, awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. Warning signs and labels can also be used to establish such awareness as long as they provide information, in a prominent manner, on risk of potential exposure and instructions on methods to minimize such exposure risk. For example, a sign warning of RF exposure risk and indicating that individuals should not remain in the area for more than a certain period of time could be acceptable.

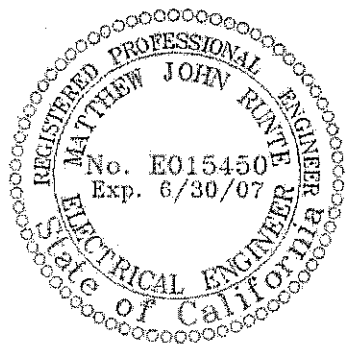
Another important point to remember concerning the FCC's exposure guidelines is that they constitute ***exposure*** limits (not ***emission*** limits), and they are relevant only to locations that are ***accessible*** to workers or members of the public. Such access can be restricted or controlled by appropriate means such as the use of fences, warning signs, etc., as noted above. For the case of occupational/controlled exposure, procedures can be instituted for working in the vicinity of RF sources that will prevent exposures in excess of the guidelines. An example of such procedures would be restricting the time an individual could be near an RF source or requiring that work on or near such sources be performed while the transmitter is turned off or while power is appropriately reduced.

Qualifications of Reporting Engineer

Mr. Runte has been involved in the measurement of RF emissions since 1979. He has designed numerous RF systems including both site design and RF system design. He is a registered Professional Engineer in the state of California, and all contents of this report are true and correct to the best of his knowledge.

Signed: _____ Date: 05/03/2007

Matthew J. Runte, P.E.



Professional Engineer Stamp

APPENDIX A

Term Definitions

Exposure Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.

Exposure, partial-body. Partial-body exposure results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources or in the near field.

General population/uncontrolled exposure. For FCC purposes, applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Maximum permissible exposure (MPE). The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.

Occupational/controlled exposure. For FCC purposes, applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see definition above), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

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CONCORD, CA. 94520

SF14145
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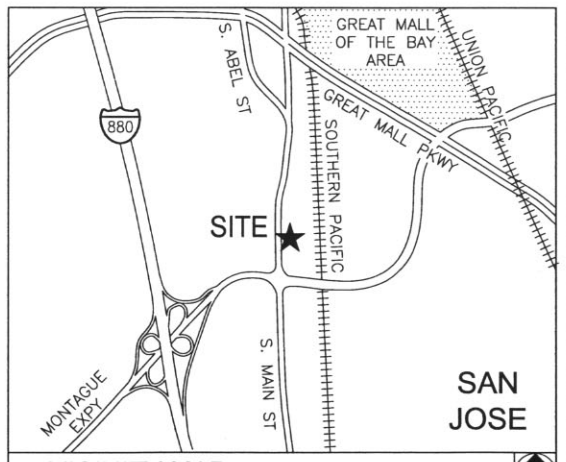
1680 SOUTH MAIN STREET
MILPITAS, CA 95035
COUNTY OF SANTA CLARA

RECEIVED
FEB 2 2 2007
CITY OF MILPITAS
PLANNING DIVISION



VICINITY MAP

DIRECTIONS FROM T-MOBILE OFFICE AT 1855 GATEWAY BOULEVARD, CONCORD CA:

1. START AT 1855 GATEWAY BLVD, CONCORD – GO < 0.1 MI
2. TURN RIGHT ON CLAYTON RD – GO 0.2 MI
3. BEAR RIGHT ONTO CA-242 SOUTH – GO 0.9 MI
4. TAKE THE OAKLAND/SAN JOSE EXIT ONTO I-680 SOUTH – GO 43.6 MI
5. TAKE THE MONTAGUE EXPWY EXIT – GO 1.8 MI
6. TURN RIGHT ON S MAIN ST – GO 0.2 MI
7. ARRIVE AT 1680 S MAIN ST, MILPITAS, ON THE RIGHT

DRIVING DIRECTIONS

THE PROJECT INVOLVES THE INSTALLATION OF:
-(6) PANEL ANTENNAS CONCEALED WITHIN FRP RADOME AT TOP OF PROPOSED FLAGPOLE.
-(4) INDOOR CABINETS MOUNTED AT EXISTING BUILDING STORAGE ROOM.
-ANTENNA COAXIAL TRANSMISSION LINES FROM BTS TO ANTENNAS.
-POWER AND TELEPHONE SERVICE TO BE PROVIDED FROM EXISTING BUILDING SOURCES.

PROJECT DESCRIPTION

APPLICANT / LESSEE
T-MOBILE OMNI POINT COMMUNICATIONS
1855 GATEWAY BOULEVARD, 9TH FLOOR
CONCORD, CA 94520

LEASING & ZONING MANAGER
CHAD ABBOTT
SUTRO CONSULTING, LLC
1011 23RD STREET, SUITE 3
SAN FRANCISCO, CA 94107
(415) 794-2966

CONSTRUCTION MANAGER
JD LAWRENCE
SUTRO CONSULTING, LLC
(916) 956-0569

PROPERTY INFORMATION

LANDLORD:	MERRITT THREE
ADDRESS:	1939 HARRISON ST., #410 OAKLAND, CA 94612
CONTACT:	ROBERT DULALIA
PHONE:	(408) 957-0500
AREA OF CONSTRUCTION:	150± SQ. FT.
OCCUPANCY TYPE:	S-2
CONSTRUCTION TYPE:	TYPE T.B.D.
CURRENT ZONING:	M4
LAT:	37° 24' 22.83" N {NAD 83}
LONG:	121° 55' 08.21" W
A.P.N.:	086-34-009
HANDICAP REQUIREMENTS:	T-MOBILE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. DISABLED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, TITLE 24, SECTION 1105B.3.4, EXCEPTION 1.

PROJECT SUMMARY

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

1. 2001 CALIFORNIA BUILDING CODE
2. UNIFORM BUILDING CODE
3. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
4. UNIFORM MECHANICAL CODE
5. ANSI/EIA-222-F
6. LIFE SAFETY CODE NFPA-101
7. UNIFORM PLUMBING CODE
8. NATIONAL ELECTRIC CODE
9. CALIFORNIA ADMINISTRATIVE CODE
10. CITY/COUNTY ORDINANCES
11. 1999 NFPA 72,LIFE SAFETY CODE
12. NFPA 13, SPRINKLER CODE
13. TITLE 24, ENERGY CODE

CODE COMPLIANCE

ARCHITECT
MICHAEL WILK ARCHITECTURE
222 SUTTER STREET, SUITE 400
SAN FRANCISCO, CA 94108
CONTACT: JAMES VACCARO
CONTACT NUMBER: (415) 350-6346
FAX NUMBER: (415) 362-8911

PROJECT TEAM

SHEET	DESCRIPTION	REV.
T1	TITLE SHEET	3
A1	OVERALL SITE PLAN	3
A2	ENLARGED PROJECT AREA PLAN	3
A3	ENLARGED EQUIPMENT AREA PLAN, ANTENNA LAYOUT, DETAIL	3
A4	ELEVATIONS	3

SHEET INDEX

TITLE	SIGNATURE	DATE
LEASING		
ZONING		
CONSTRUCTION		
T-MOBILE PM		
RF ENGINEER		

SIGNATURE BLOCK

DO NOT SCALE DRAWINGS
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.

GENERAL CONTRACTOR NOTES

Michael Wilk Architecture
222 Sutter Street, Suite 400
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fax: 415.362.8911

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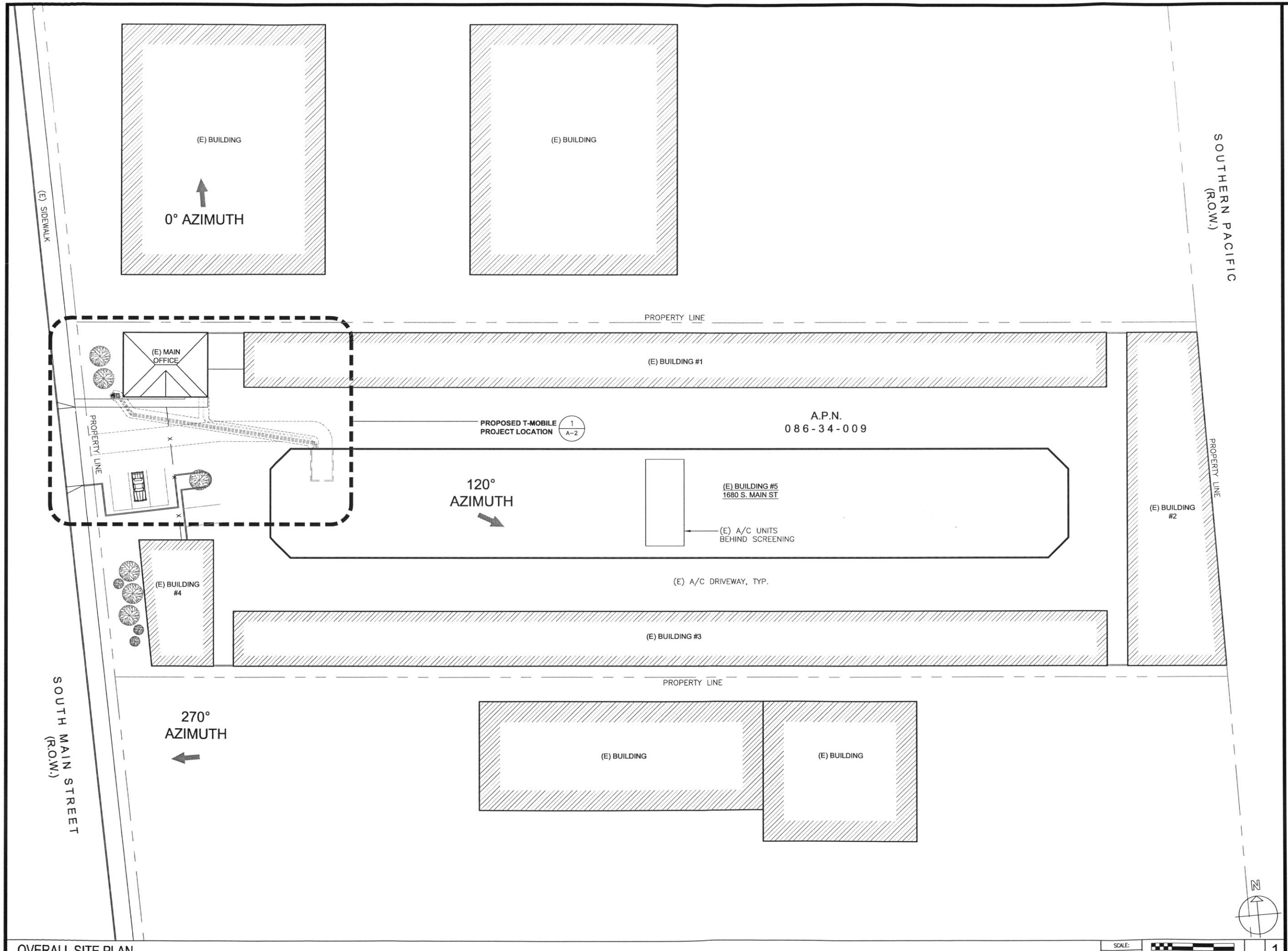
1680 S. MAIN STREET
MILPITAS, CA 95035

PROJECT NO.	SF14145
DRAWN BY	SH
CHECKED BY	MICHAEL WILK

NO.	DATE	ISSUE
1	11/07/06	90% ZONING
2	11/30/06	100% ZONING
3	01/23/07	100% ZONING REV

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



OVERALL SITE PLAN

SCALE: 1"=20'-0" (0, 10', 20', 40')

1

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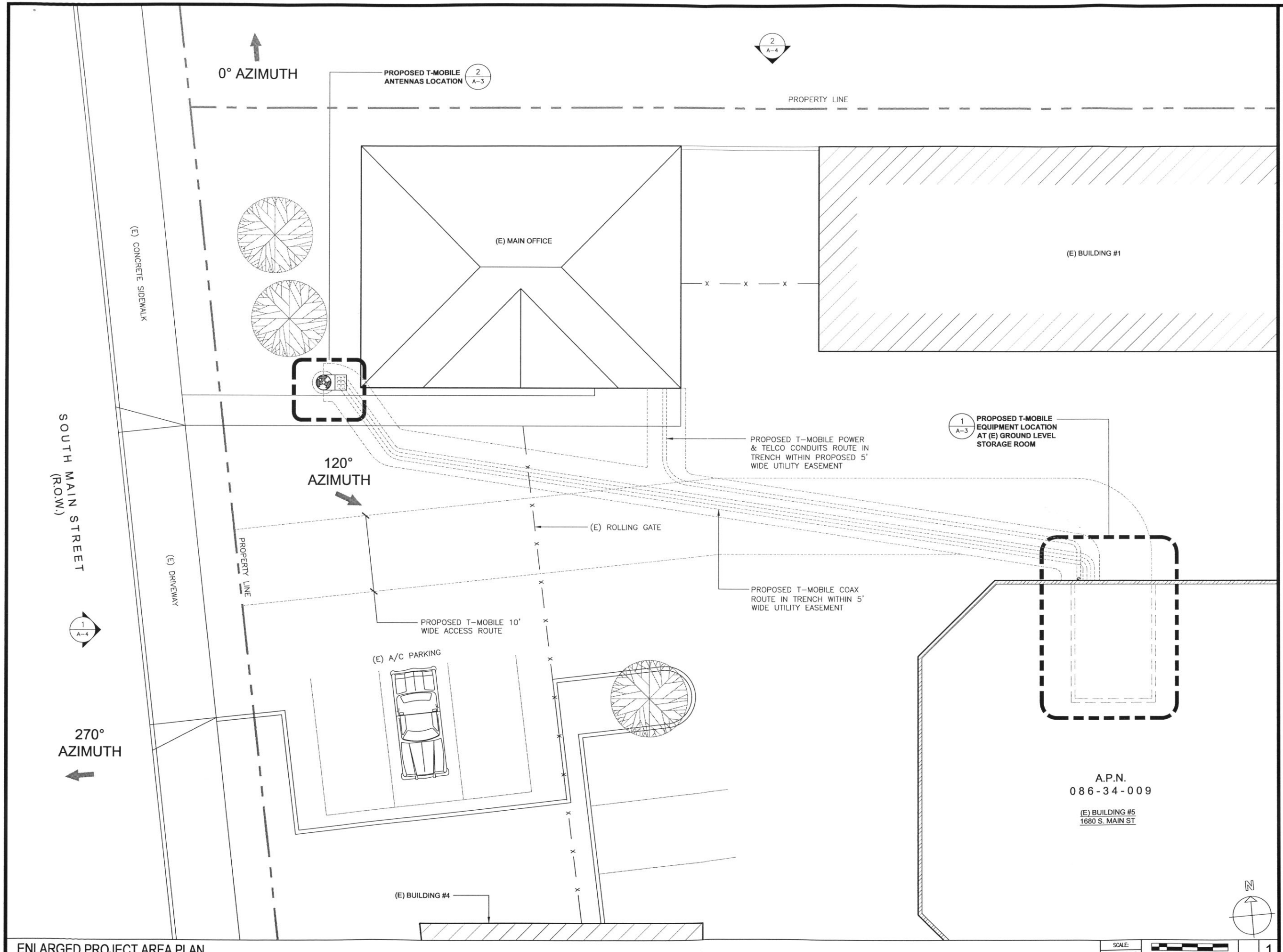
3	01/23/07	100% ZONING REV

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

A-1



ENLARGED PROJECT AREA PLAN

SCALE: 3/16"=1'-0"

0 1' 2' 6' 10'

1

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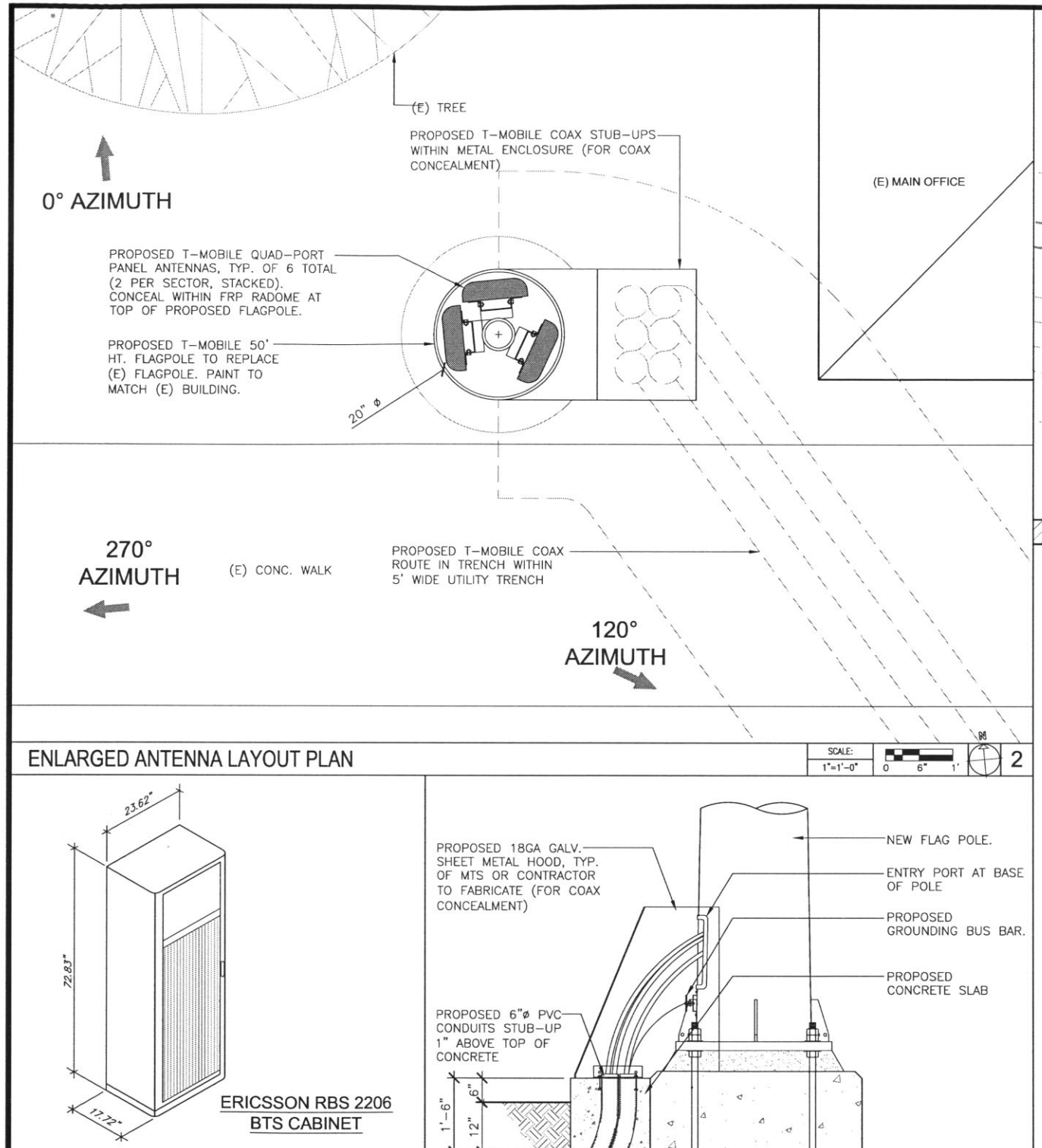
3	01/23/07	100% ZONING REV

SHEET TITLE

ENLARGED PROJECT AREA PLAN

SHEET NUMBER

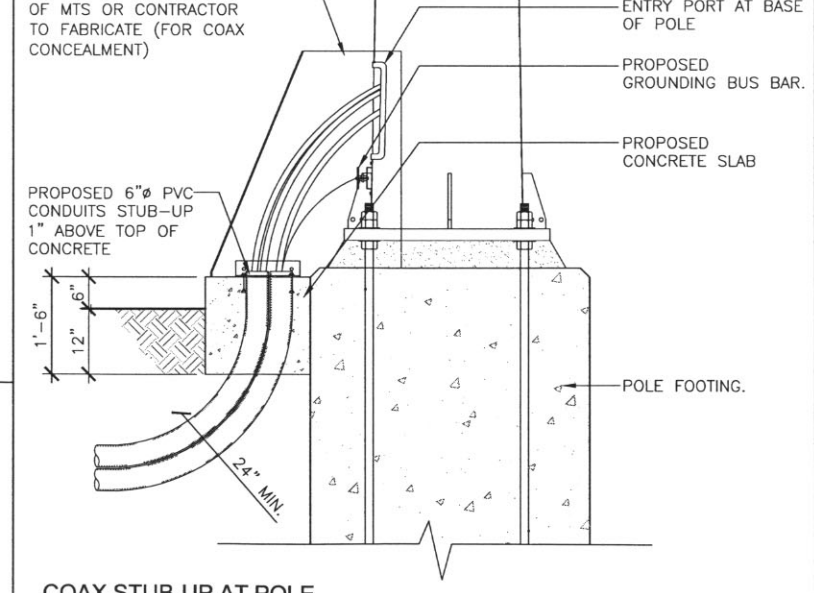
A-2



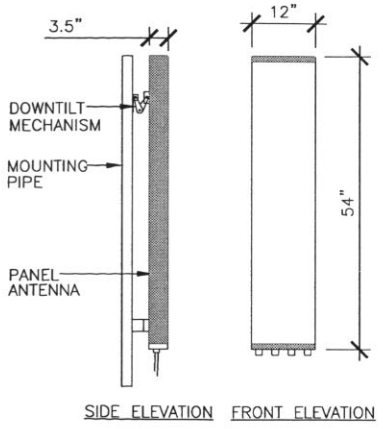
ENLARGED ANTENNA LAYOUT PLAN

SCALE: 1"=1'-0" 0 6" 1' — 2

ERICSSON RBS 2206
BTS CABINET



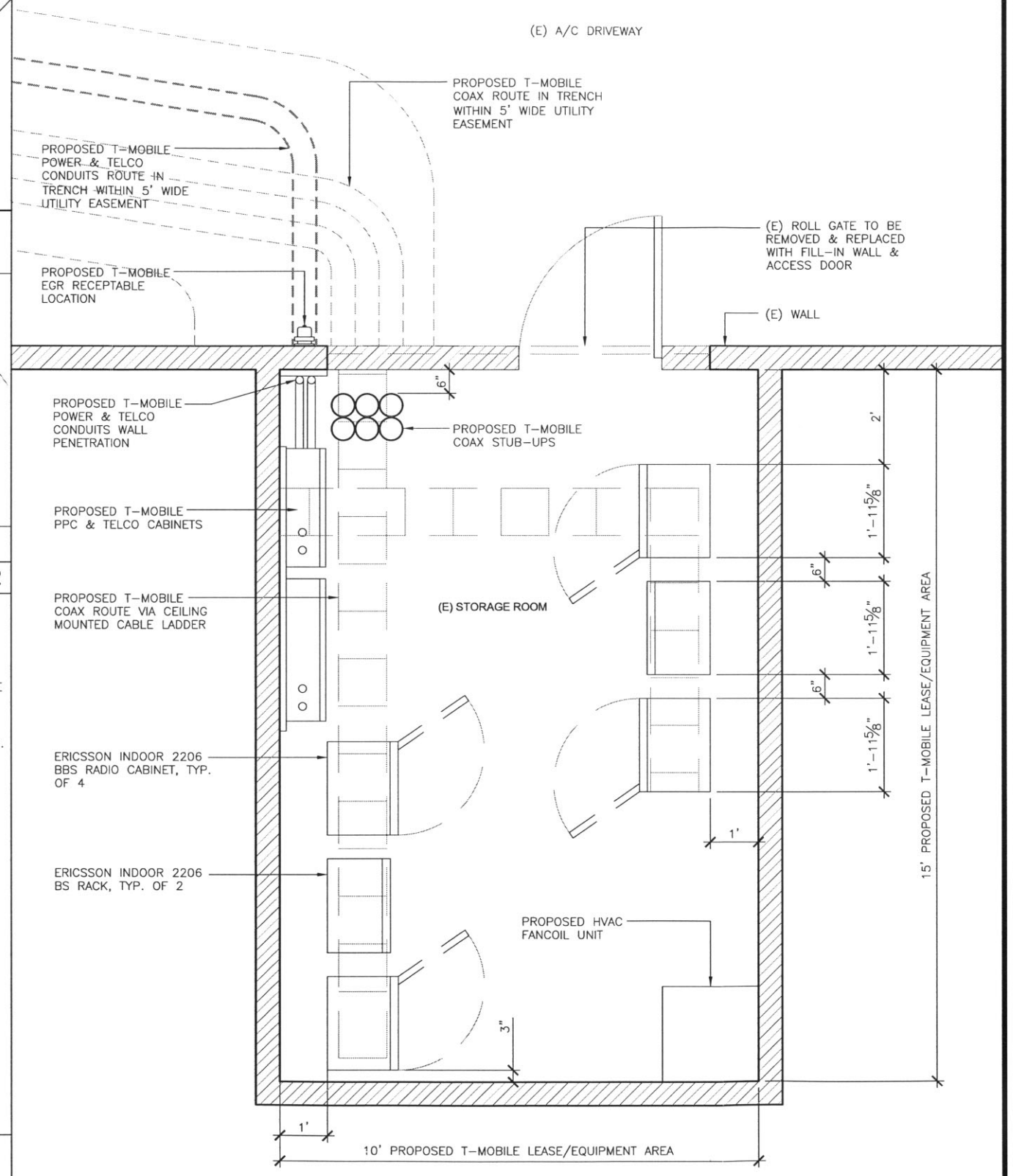
COAX STUB-UP AT POLE



ANDREW
ADFD1820-6565B-XDM
QUAD PORT PANEL ANTENNA

BTS CABINET / PANEL ANTENNA / COAX STUB-UP DETAILS

SCALE: N.T.S. — 3



ENLARGED EQUIPMENT AREA PLAN

SCALE: 3/4"=1'-0" 0 6" 1' 3' — 1

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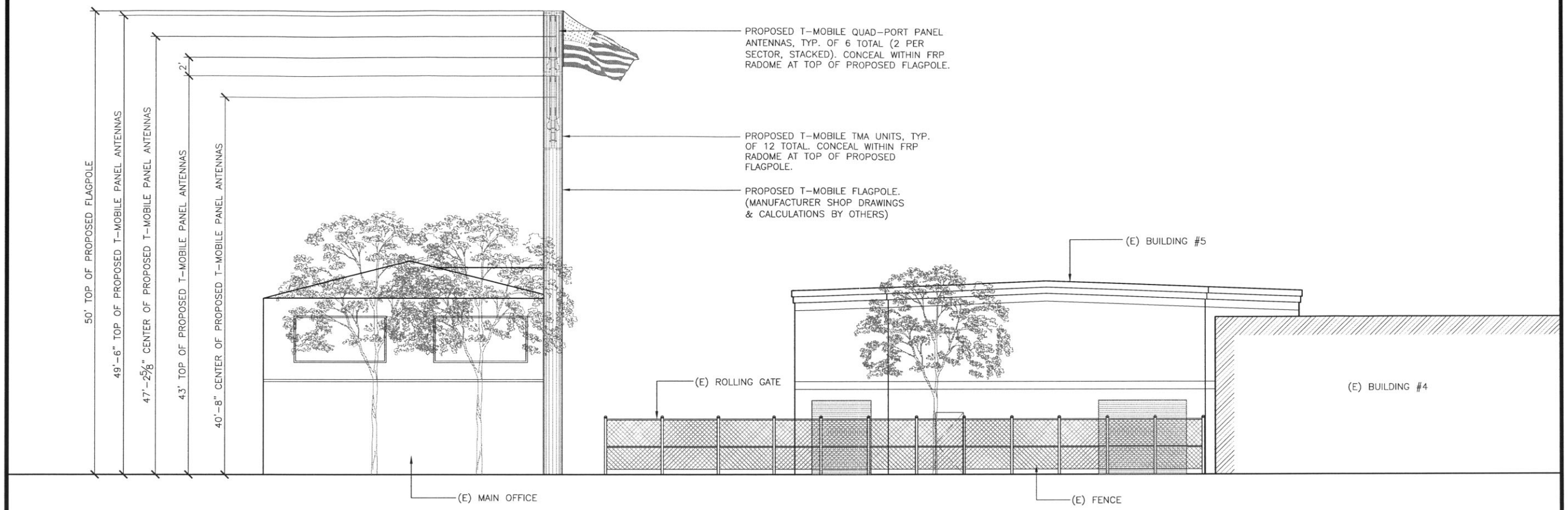
CHECKED BY MICHAEL WILK

NO	DATE	ISSUE
1	11/07/06	90% ZONING
2	11/30/06	100% ZONING
3	01/23/07	100% ZONING REV

SHEET TITLE
ENLARGED EQUIPMENT AREA PLAN / ANTENNA LAYOUTS / DETAILS

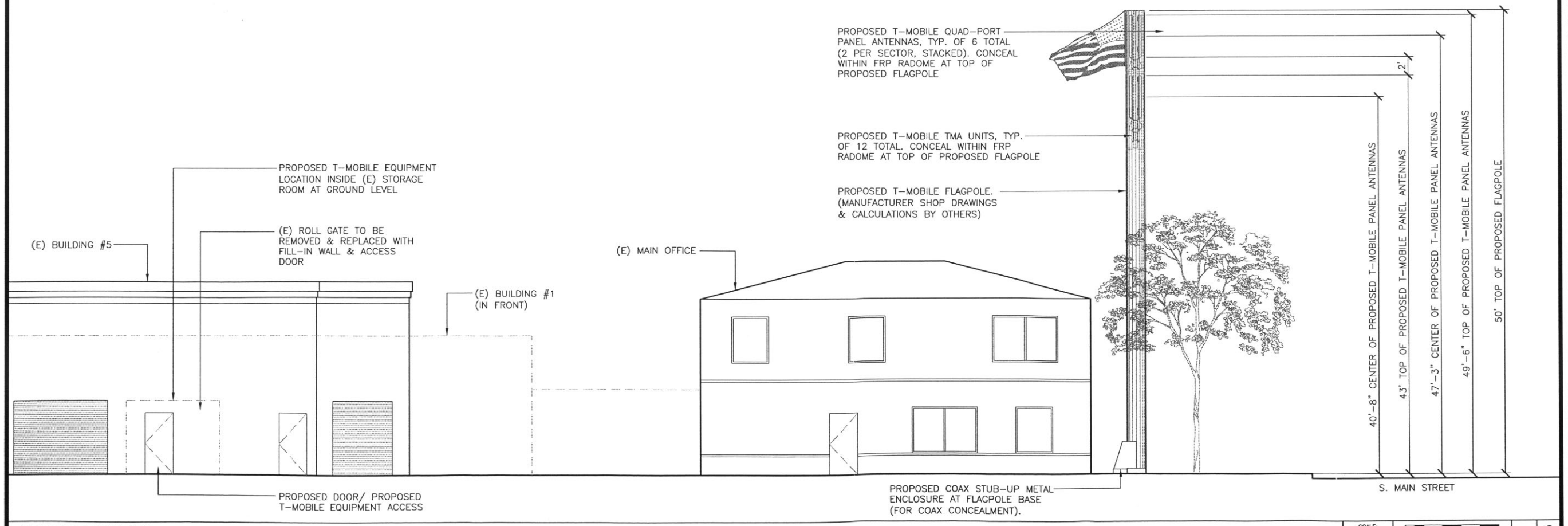
SHEET NUMBER
A-3



WEST ELEVATION

SCALE: 3/16"=1'-0" 0 1' 2' 6' 10'

1



NORTH ELEVATION

SCALE: 3/16"=1'-0" 0 1' 2' 6' 10'

2

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NO	DATE	ISSUE
1	11/07/06	90% ZONING
2	11/30/06	100% ZONING
3	01/23/07	100% ZONING REV

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-4